

| Product code | Description |
|----------------|--|
| VTPB310 | Vibra-TITE® Methacrylate Adhesives PB310 All Purpose - For Difficult-To-Bond; High Strength |

Components:

| | |
|----------|---|
| VTPB310A | Vibra-TITE® Methacrylate Adhesives PB310 All Purpose - For Difficult-To-Bond; High Strength - Part A |
| VTPB310B | Vibra-TITE® Methacrylate Adhesives PB310 All Purpose - For Difficult-To-Bond; High Strength - Part B |

Safety Data Sheet according to WHS Regulations

Printing date 12.05.2021

Version number 23

Revision: 30.03.2021

1 Identification

- Product identifier

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

- **Article number:** VTPB310A

- **Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

- **Sector of Use** SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

- **Product category** PC1 Adhesives, sealants

- **Environmental release category** ERC5 Use at industrial site leading to inclusion into/onto article

- **Article category** AC0 Other

- **Application of the substance / the mixture** Adhesives

- Details of the supplier of the safety data sheet

- Manufacturer

ND Industries, Inc
1000 North Crooks Road
Clawson, MI 48017
USA
Telephone: +1-248-288-0000
Email: info@ndindustries.com
Website: www.ndindustries.com

Supplier:

Engineering Adhesives & Lubricants (Aust) Pty Ltd
3/119 Olympic Circuit
Southport QLD 4215
Australia
Telephone: +61-7-55314242
Email: info@eal.com.au
Website: www.eal.com.au

- **Further information obtainable from:** 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 vapour.



GHS08 health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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



GHS05 corrosion

Skin Corr. 1C H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

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 labelled according to the Globally Harmonised System (GHS).

- Hazard pictograms



GHS02 GHS05 GHS07 GHS08

- **Signal word** Danger

- **Hazard-determining components of labelling:**

methyl methacrylate

maleic anhydride

Safety Data Sheet

according to WHS Regulations

Printing date 12.05.2021

Version number 23

Revision: 30.03.2021

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 1)

Monofunctional acid ester

- Hazard statements

- H225 Highly flammable liquid and vapour.
 H314 Causes severe skin burns and eye damage.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 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, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 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.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Other hazards**- Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
 - **vPvB:** Not applicable.

3 Composition and Information on Ingredients

- Chemical characterisation: Mixtures

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

- Dangerous components:

| | | |
|---------------|---|-----------------|
| CAS: 80-62-6 | methyl methacrylate Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335 | 50 – 59% |
| CAS: 108-31-6 | maleic anhydride Resp. Sens. 1, H334; STOT RE 1, H372; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Sens. 1, H317 | ≥ 3 – < 4% |
| CAS: 128-37-0 | Butylated hydroxytoluene Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H336 | 1 – 4% |
| | Monofunctional acid ester Acute Tox. 3, H311; Skin Corr. 1C, H314; Eye Dam. 1, H318; Aquatic Chronic 2, H411; Skin Sens. 1, H317 | ≥ 1 – < 2.5% |
| 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; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H312; STOT SE 3, H335 | ≥ 0.25 – < 1% |
| CAS: 98-82-8 | cumene Flam. Liq. 3, H226; Carc. 2, H351; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Acute Tox. 4, H302; STOT SE 3, H335 | ≥ 0.1 – < 0.25% |

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

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.

5 Fire Fighting Measures

- Extinguishing media

- **Suitable extinguishing agents:** 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.

(Contd. on page 3)

Safety Data Sheet according to WHS Regulations

Printing date 12.05.2021

Version number 23

Revision: 30.03.2021

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 2)

- 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).
- Dispose contaminated material as waste according to item 13.
- Ensure adequate ventilation.
- Do not flush with water or aqueous cleansing agents
- Dispose of the material collected 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 fire - and explosion protection:

- 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 container tightly sealed.

- Specific end use(s) No further relevant information available.

8 Exposure controls and personal protection

- Additional information about design of technical facilities: No further data; see item 7.**- Control parameters****- Ingredients with limit values that require monitoring at the workplace:****CAS: 80-62-6 methyl methacrylate**

WES Short-term value: 416 mg/m³, 100 ppm
 Long-term value: 208 mg/m³, 50 ppm
 Sen

CAS: 108-31-6 maleic anhydride

WES Long-term value: 1 mg/m³, 0.25 ppm
 Sen

CAS: 128-37-0 Butylated hydroxytoluene

WES Long-term value: 10 mg/m³

CAS: 98-82-8 cumene

WES Short-term value: 375 mg/m³, 75 ppm
 Long-term value: 125 mg/m³, 25 ppm
 Sk

- 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.

(Contd. on page 4)

Safety Data Sheet

according to WHS Regulations

Printing date 12.05.2021

Version number 23

Revision: 30.03.2021

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 3)

- Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- 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.

- Body protection: Protective work clothing

9 Physical and Chemical Properties

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

Viscous

- Colour:

Whitish

- Odour:

Pungent

- Odour threshold:

Not determined.

- pH-value:

Not determined.

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

Undetermined.

- Initial boiling point and boiling range: ≥ 101 °C**- Flash point:**

10 °C

- Flammability (solid, gas):

Not applicable.

- Ignition temperature:

430 °C

- Decomposition temperature:

Not determined.

- Auto-ignition temperature:

Product is not selfigniting.

- Explosive properties:

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

- Explosion limits:**- Lower:**

2.1 Vol %

- Upper:

12.5 Vol %

- Vapour pressure at 20 °C:

≤ 47 hPa

- Density at 20 °C:~ 0.96 g/cm³**- Relative density**

Not determined.

- Vapour density

Not determined.

- Evaporation rate

Not determined.

- Solubility in / Miscibility with**- water:**

Not miscible or difficult to mix.

- Partition coefficient: n-octanol/water: Not determined.**- Viscosity:****- Dynamic at 20 °C:**

60,000 mPas

- Kinematic:

Not determined.

- Solvent content:**- Organic solvents:**

0.1 %

- VOC (EC)

0.10 %

- Solids content:

40.3 %

(Contd. on page 5)

Safety Data Sheet

according to WHS Regulations

Printing date 12.05.2021

Version number 23

Revision: 30.03.2021

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 4)

- **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 relevant for classification:**

ATE (Acute Toxicity Estimates)

| | | |
|--------|------|-------------------|
| Oral | LD50 | 8,165 mg/kg (rat) |
| Dermal | LD50 | 20,000 mg/kg |

CAS: 80-62-6 methyl methacrylate

| | | |
|------|------|-------------------|
| Oral | LD50 | 7,872 mg/kg (rat) |
|------|------|-------------------|

CAS: 108-31-6 maleic anhydride

| | | |
|--------|------|----------------------|
| Oral | LD50 | 400 mg/kg (rat) |
| Dermal | LD50 | 2,620 mg/kg (rabbit) |

CAS: 128-37-0 Butylated hydroxytoluene

| | | |
|------|------|-----------------|
| Oral | LD50 | 890 mg/kg (rat) |
|------|------|-----------------|

Monofunctional acid ester

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

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: 98-82-8 cumene

| | | |
|------------|----------|-----------------------|
| Oral | LD50 | 1,400 mg/kg (rat) |
| Dermal | LD50 | 12,300 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 24.7 mg/l (mouse) |

- **Primary irritant effect:**
 - **Skin corrosion/irritation** Irritant to skin and mucous membranes.
 - **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation**
 - Sensitisation possible through inhalation.
 - Sensitisation possible through skin contact.
- **Additional toxicological information:**
 - The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
 - Harmful
 - Irritant

12 Ecological Information

- **Toxicity**
 - **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour 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 (German Regulation) (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.

(Contd. on page 6)

Safety Data Sheet

according to WHS Regulations

Printing date 12.05.2021

Version number 23

Revision: 30.03.2021

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 together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packaging:

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

| | |
|--|--|
| - UN-Number - ADG, IMDG, IATA | UN2924 |
| - UN proper shipping name - ADG | UN2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED, MALEIC ANHYDRIDE) |
| - IMDG, IATA | FLAMMABLE LIQUID, CORROSIVE, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED, MALEIC ANHYDRIDE) |
| - Transport hazard class(es) - ADG | |
|   | |
| - Class - Label | 3 Flammable liquids. 3+8 |
| - IMDG | |
|   | |
| - Class - Label | 3 Flammable liquids. 3/8 |
| - IATA | |
|   | |
| - Class - Label | 3 Flammable liquids. 3 (8) |
| - Packing group - ADG, IMDG, IATA | II |
| - Environmental hazards: - Marine pollutant: | No |
| - Special precautions for user - Hazard identification number (Kemler code): - EMS Number: - Segregation groups - Stowage Category - Stowage Code | Warning: Flammable liquids. 338 F-E, S-C Acids B SW2 Clear of living quarters. |
| - Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |

(Contd. on page 7)

Safety Data Sheet

according to WHS Regulations

Printing date 12.05.2021

Version number 23

Revision: 30.03.2021

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 7)

| | |
|--|--|
| - Transport/Additional information: | |
| - ADG | |
| - Limited quantities (LQ) | 1L |
| - Excepted quantities (EQ) | Code: E2 |
| | Maximum net quantity per inner packaging: 30 ml |
| | Maximum net quantity per outer packaging: 500 ml |
| - Transport category | 2 |
| - Tunnel restriction code | D/E |
| - IMDG | |
| - Limited quantities (LQ) | 1L |
| - Excepted quantities (EQ) | Code: E2 |
| | Maximum net quantity per inner packaging: 30 ml |
| | Maximum net quantity per outer packaging: 500 ml |
| - UN "Model Regulation": | UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED, MALEIC ANHYDRIDE), 3 (8), II |

15 Regulatory information

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

- Australian Inventory of Industrial Chemicals

| | | |
|-----------------|------------------------------|--|
| CAS: 80-62-6 | methyl methacrylate | |
| CAS: 108-31-6 | maleic anhydride | |
| CAS: 128-37-0 | Butylated hydroxytoluene | |
| CAS: 80-15-9 | dimethylbenzyl hydroperoxide | |
| CAS: 98-82-8 | cumene | |
| CAS: 67762-90-7 | Amorphous Silica | |
| CAS: 617-94-7 | 2-Phenyl-2-propanol | |
| | Polymerization inhibitor | |
| CAS: 130-15-4 | 1,4-naphthoquinone | |

- Standard for the Uniform Scheduling of Medicines and Poisons

| | | |
|--------------|---------------------|---------|
| CAS: 80-62-6 | methyl methacrylate | S6, S10 |
|--------------|---------------------|---------|

- Australia: Priority Existing Chemicals

None of the ingredients is listed.

- Directive 2012/18/EU

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

- **Seveso category** P5c FLAMMABLE LIQUIDS

- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t

- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t

- **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.

- Relevant phrases

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H242 Heating may cause a fire.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H311 Toxic in contact with skin.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

(Contd. on page 8)

Safety Data Sheet according to WHS Regulations

Printing date 12.05.2021

Version number 23

Revision: 30.03.2021

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 7)

H372 Causes damage to organs through prolonged or repeated exposure.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H411 Toxic to aquatic life with long lasting effects.

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

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

- **Classification System:**

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Self-react. F: Self-reactive substances and mixtures – Type E/F

Org. Perox. E: Organic peroxides – Type E/F

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 3: Acute toxicity – Category 3

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

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. 2: Serious eye damage/eye irritation – Category 2

Resp. Sens. 1: Respiratory sensitisation – Category 1

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 1: Specific target organ toxicity (repeated exposure) – Category 1

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

- **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.

Safety Data Sheet
according to WHS Regulations

Printing date 12.05.2021

Version number 15

Revision: 30.03.2021

1 Identification**- Product identifier****- Trade name:** Vibra-TITE® Methacrylate Adhesives**- Article number:** VTPB310B**- Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

- Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites**- Product category** PC1 Adhesives, sealants**- Environmental release category** ERC5 Use at industrial site leading to inclusion into/onto article**- Article category** AC0 Other**- Application of the substance / the mixture** Adhesives**- Details of the supplier of the safety data sheet****- Manufacturer:**ND Industries, Inc
1000 North Crooks Road
Clawson, MI 48017
USA
Telephone: +1-248-288-0000
Email: info@ndindustries.com
Website: www.ndindustries.com**Supplier:**Engineering Adhesives & Lubricants (Aust) Pty Ltd
3/119 Olympic Circuit
Southport QLD 4215
Australia
Telephone: +61-7-55314242
Email: info@eal.com.au
Website: www.eal.com.au**- Further information obtainable from:** 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 vapour.



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.

- Label elements**- GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).**- Hazard pictograms**

GHS02 GHS07

- Signal word Danger**- Hazard-determining components of labelling:**

methyl methacrylate

- Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

- Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

(Contd. on page 2)

Safety Data Sheet

according to WHS Regulations

Printing date 12.05.2021

Version number 15

Revision: 30.03.2021

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 1)

P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Other hazards**- Results of PBT and vPvB assessment****- PBT:** Not applicable.**- vPvB:** Not applicable.

3 Composition and Information on Ingredients

- Chemical characterisation: Mixtures**- Description:** Mixture of substances listed below with nonhazardous additions.**- Dangerous components:**

| | | |
|-----------------|--|----------|
| CAS: 80-62-6 | methyl methacrylate Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335 | 70 – 79% |
| CAS: 34562-31-7 | 3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319 | 1 – 4% |
| CAS: 128-37-0 | Butylated hydroxytoluene Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H336 | ≤ 1% |

- Additional information: For the wording of the listed hazard phrases refer to section 16.

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. 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.**- 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, 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 material collected 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.

(Contd. on page 3)

Safety Data Sheet

according to WHS Regulations

Printing date 12.05.2021

Version number 15

Revision: 30.03.2021

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 2)

Prevent formation of aerosols.

- Information about fire - and explosion protection:

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 container tightly sealed.**- Specific end use(s)** No further relevant information available.

8 Exposure controls and personal protection

- Additional information about design of technical facilities: No further data; see item 7.**- Control parameters****- Ingredients with limit values that require monitoring at the workplace:****CAS: 80-62-6 methyl methacrylate**

| | |
|-----|---|
| WES | Short-term value: 416 mg/m ³ , 100 ppm |
| | Long-term value: 208 mg/m ³ , 50 ppm |
| | Sen |

CAS: 128-37-0 Butylated hydroxytoluene

| | |
|-----|---------------------------------------|
| WES | Long-term value: 10 mg/m ³ |
|-----|---------------------------------------|

- 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.

- Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- 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

- Colour:

Whitish

- Odour:

Pungent

- Odour threshold:

Not determined.

(Contd. on page 4)

Safety Data Sheet

according to WHS Regulations

Printing date 12.05.2021

Version number 15

Revision: 30.03.2021

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 4)

| | |
|---|---|
| - pH-value: | Not determined. |
| - Change in condition | |
| - Melting point/freezing point: | Undetermined. |
| - Initial boiling point and boiling range: | ≥ 101 °C |
| - Flash point: | 10 °C |
| - Flammability (solid, gas): | Not applicable. |
| - Ignition temperature: | 430 °C |
| - Decomposition temperature: | Not determined. |
| - Auto-ignition temperature: | Product is not selfigniting. |
| - Explosive properties: | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |
| - Explosion limits: | |
| - Lower: | 2.1 Vol % |
| - Upper: | 12.5 Vol % |
| - Vapour pressure at 20 °C: | ≤ 47 hPa |
| - Density at 20 °C: | ~ 1.25 g/cm ³ |
| - Relative density | Not determined. |
| - Vapour density | Not determined. |
| - Evaporation rate | Not determined. |
| - Solubility in / Miscibility with | |
| - water: | Not miscible or difficult to mix. |
| - Partition coefficient: n-octanol/water: | Not determined. |
| - Viscosity: | |
| - Dynamic at 20 °C: | 100,000 mPas |
| - Kinematic: | Not determined. |
| - Solvent content: | |
| - VOC (EC) | 0.00 % |
| - Solids content: | 26.7 % |
| - Other information | No further relevant information available. |

10 Stability and Reactivity

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

11 Toxicological Information

- **Information on toxicological effects**
 - **Acute toxicity**

- **LD/LC50 values relevant for classification:**

ATE (Acute Toxicity Estimates)

| | | |
|--------|------|--------------|
| Oral | LD50 | 16,330 mg/kg |
| Dermal | LD50 | 44,000 mg/kg |

CAS: 80-62-6 methyl methacrylate

| | | |
|------|------|-------------------|
| Oral | LD50 | 7,872 mg/kg (rat) |
|------|------|-------------------|

CAS: 34562-31-7 3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine

| | | |
|--------|------|-------------------|
| Oral | LD50 | 500 mg/kg (ATE) |
| Dermal | LD50 | 1,100 mg/kg (ATE) |

CAS: 128-37-0 Butylated hydroxytoluene

| | | |
|------|------|-----------------|
| Oral | LD50 | 890 mg/kg (rat) |
|------|------|-----------------|

(Contd. on page 5)

Safety Data Sheet according to WHS Regulations

Printing date 12.05.2021

Version number 15

Revision: 30.03.2021

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 4)

- **Primary irritant effect:**
 - **Skin corrosion/irritation** Irritant to skin and mucous membranes.
 - **Serious eye damage/irritation** No irritating effect.
 - **Respiratory or skin sensitisation** Sensitisation possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant


12 Ecological Information

- **Toxicity**
 - **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour 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 (German Regulation) (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 together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
 - **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

| | |
|--|--|
| - UN-Number - ADG, IMDG, IATA | UN1133 |
| - UN proper shipping name - ADG - IMDG, IATA | UN1133 ADHESIVES ADHESIVES |
| - Transport hazard class(es) - ADG, IMDG, IATA | |
|  | |
| - Class - Label | 3 Flammable liquids. 3 |
| - Packing group - ADG, IMDG, IATA | III |
| - Environmental hazards: - Marine pollutant: | No |
| - Special precautions for user - Hazard identification number (Kemler code): - EMS Number: - Stowage Category | Warning: Flammable liquids. - F-E,S-D A |
| - Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |

(Contd. on page 6)

Safety Data Sheet

according to WHS Regulations

Printing date 12.05.2021

Version number 15

Revision: 30.03.2021

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 4)

| | |
|--|---|
| - Transport/Additional information: | |
| - ADG | |
| - 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 |
| - Transport category | 3 |
| - Tunnel restriction code | E |
| - IMDG | |
| - 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 |
| - UN "Model Regulation": | UN 1133 ADHESIVES, 3, III |

15 Regulatory information

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

- Australian Inventory of Industrial Chemicals

| | | |
|-----------------|---|--|
| CAS: 80-62-6 | methyl methacrylate | |
| CAS: 26299-47-8 | 2-propenoic acid, butyl ester polymer | |
| CAS: 34562-31-7 | 3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine | |
| CAS: 128-37-0 | Butylated hydroxytoluene | |
| | Polymerization inhibitor | |
| CAS: 13395-16-9 | copper(II) 4-oxopent-2-en-2-olate | |

- Standard for the Uniform Scheduling of Medicines and Poisons

| | | |
|--------------|---------------------|---------|
| CAS: 80-62-6 | methyl methacrylate | S6, S10 |
|--------------|---------------------|---------|

- Australia: Priority Existing Chemicals

None of the ingredients is listed.

- Directive 2012/18/EU

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

- **Seveso category** P5c FLAMMABLE LIQUIDS

- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t

- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t

- **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.

- Relevant phrases

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

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

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

- Classification System:

- Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

(Contd. on page 7)

Safety Data Sheet
according to WHS Regulations

Printing date 12.05.2021

Version number 15

Revision: 30.03.2021

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 4)

Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

- 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.