

Safety Data Sheet
according to HPR, Schedule 1

Printing date 01/29/2024

Reviewed on 01/26/2024

1 Identification

- Product identifier

- **Trade name:** Vibra-TITE® Methacrylate Adhesives
- **Synonyms:** PB530 All Purpose - Moderate Set Time; High Strength - Part A
- **Part number:** VTPB530A
- **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 identification**

- Classification of the substance or mixture



GHS02 Flame

Flammable Liquids - Category 2

H225 Highly flammable liquid and vapour.



GHS08 Health hazard

Respiratory Sensitizer - Category 1

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



GHS07

Skin Irritation - Category 2

H315 Causes skin irritation.

Eye Irritation - Category 2A

H319 Causes serious eye irritation.

Skin Sensitizer - Category 1

H317 May cause an allergic skin reaction.

Specific Target Organ Toxicity - Single Exposure - Category 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 GHS07 GHS08

- **Signal word** Danger

- Hazard-determining components of labeling:

- methyl methacrylate
- 2-ethylhexyl methacrylate
- 2-hydroxyethyl methacrylate
- maleic anhydride
- Monofunctional acid ester
- mequinol

- Hazard statements

- H225 Highly flammable liquid and vapour.
- H315 Causes skin irritation.

Safety Data Sheet

according to HPR, Schedule 1

Printing date 01/29/2024

Reviewed on 01/26/2024

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 1)

H319 Causes serious eye irritation.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 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.
 P240 Ground and bond container and receiving equipment.
 P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
 P242 Use non-sparking tools.
 P271 Use only outdoors or in a well-ventilated area.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P280 Wear protective gloves.
 P284 [In case of inadequate ventilation] wear respiratory protection.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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.
 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).
 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.

3 Composition/Information on ingredients

- Chemical characterization: Mixtures

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

- Dangerous components:

| | | |
|---------------|---|--------------|
| CAS: 80-62-6 | methyl methacrylate Flammable Liquids - Category 2, H225; Skin Irritation - Category 2, H315; Skin Sensitizer - Category 1, H317; Specific Target Organ Toxicity - Single Exposure - Category 3, H335 | 15 – 40% w/w |
| CAS: 688-84-6 | 2-ethylhexyl methacrylate Skin Irritation - Category 2, H315; Eye Irritation - Category 2A, H319; Skin Sensitizer - Category 1, H317; Specific Target Organ Toxicity - Single Exposure - Category 3, H335; Flammable Liquids - Category 4, H227 | 10 – 30% w/w |
| CAS: 868-77-9 | 2-hydroxyethyl methacrylate Skin Irritation - Category 2, H315; Eye Irritation - Category 2A, H319; Skin Sensitizer - Category 1, H317 | 5 – 10% w/w |
| CAS: 108-31-6 | maleic anhydride Respiratory Sensitizer - Category 1, H334; Specific Target Organ Toxicity - Repeated Exposure - Category 1, H372; Skin Corrosion - Category 1B, H314; Serious Eye Damage - Category 1, H318; Acute Toxicity (Oral) - Category 4, H302; Skin Sensitizer - Category 1, H317 | 0.1 – 1% w/w |
| CAS: 80-15-9 | dimethylbenzyl hydroperoxide Self-reactive Substances and Mixtures – Type F, H242; Organic Peroxides – Type E, H242; Acute Toxicity (Inhalation) - Category 3, H331; Specific Target Organ Toxicity - Repeated Exposure - Category 2, H373; Aspiration Hazard - Category 1, H304; Skin Corrosion - Category 1B, H314; Serious Eye Damage - Category 1, H318; Acute Toxicity (Oral) - Category 4, H302; Acute Toxicity (Dermal) – Category 4, H312; Specific Target Organ Toxicity - Single Exposure - Category 3, H335; Flammable Liquids - Category 4, H227 | 0.1 – 1% w/w |
| | Monofunctional acid ester Acute Toxicity (Dermal) – Category 3, H311; Skin Corrosion - Category 1C, H314; Serious Eye Damage - Category 1, H318; Skin Sensitizer - Category 1, H317 | 0.1 – 1% w/w |
| CAS: 150-76-5 | mequinol Acute Toxicity (Oral) - Category 4, H302; Eye Irritation - Category 2A, H319; Skin Sensitizer - Category 1, H317 | ≤ 0.1% w/w |

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.

(Contd. on page 3)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 01/29/2024

Reviewed on 01/26/2024

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 2)

- **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.
- **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 section 7.
- **Control parameters**
 - **Components with limit values that require monitoring at the workplace:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

CAS: 80-62-6 methyl methacrylate

| | |
|-------------|--------------------------------------|
| EL (Canada) | STEL: 100 ppm TWA: 50 ppm S(D) |
| EV (Canada) | STEL: 100 ppm TWA: 50 ppm |
| PEL (USA) | TWA: 410 mg/m ³ , 100 ppm |

(Contd. on page 4)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 01/29/2024

Reviewed on 01/26/2024

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 3)

| | |
|--|---|
| REL (USA) | TWA: 410 mg/m ³ , 100 ppm |
| TLV (USA) | STEL: 100 ppm TWA: 50 ppm DSEN, A4 |
| CAS: 108-31-6 maleic anhydride | |
| EL (Canada) | TWA: 0.1 ppm S(D), S(R) |
| EV (Canada) | TWA: 0.1 ppm |
| PEL (USA) | TWA: 1 mg/m ³ , 0.25 ppm |
| REL (USA) | TWA: 1 mg/m ³ , 0.25 ppm |
| TLV (USA) | TWA: 0.01* mg/m ³ DSEN, RSEN;*inh. fraction + vapor, A4 |
| CAS: 80-15-9 dimethylbenzyl hydroperoxide | |
| WEEL (USA) | TWA: 6 mg/m ³ , 1 ppm Skin |
| CAS: 150-76-5 mequinol | |
| EL (Canada) | TWA: 5 mg/m ³ |
| EV (Canada) | TWA: 5 mg/m ³ |
| REL (USA) | TWA: 5 mg/m ³ |
| TLV (USA) | TWA: 5 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 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.

- 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:** ≥ 101 °C

- **Flash point:** 10 °C

(Contd. on page 5)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 01/29/2024

Reviewed on 01/26/2024

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 4)

| | |
|---|--|
| - Flammability (solid, gaseous): | Highly flammable. |
| - Auto igniting: | 430 °C |
| - Decomposition temperature: | Not determined. |
| - Ignition temperature: | 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: | ≤ 47 hPa |
| - Density at 20 °C: | ~ 0.96 g/cm ³ |
| - Relative density | Not determined. |
| - Vapor density | Not determined. |
| - Evaporation rate | Not determined. |
| - Solubility in / Miscibility with | |
| - Water: | Not miscible or difficult to mix. |
| - Partition coefficient (n-octanol/water): | Not determined. |
| - Viscosity: | |
| - Dynamic at 20 °C: | 325,000 mPas |
| - Kinematic: | Not determined. |
| - Solvent content: | |
| - Organic solvents: | 0.1 % |
| - VOC content: | 0.05 % ~ 0.5 g/l / ~ 0.00 lb/gal |
| - Solids content: | 33.8 % |
| - 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)

| | | |
|------------|----------|-------------------|
| Dermal | LD50 | 75,000 mg/kg |
| Inhalative | LC50/4 h | 52,381 mg/l (rat) |

CAS: 80-62-6 methyl methacrylate

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

CAS: 868-77-9 2-hydroxyethyl methacrylate

| | | |
|------|------|-------------------|
| Oral | LD50 | 5,050 mg/kg (rat) |
|------|------|-------------------|

CAS: 108-31-6 maleic anhydride

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

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) |

(Contd. on page 6)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 01/29/2024

Reviewed on 01/26/2024

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 5)

| | | |
|----------------------------------|------|-------------------|
| Monofunctional acid ester | | |
| Dermal | LD50 | 300 mg/kg (ATE) |
| CAS: 150-76-5 mequinol | | |
| Oral | LD50 | 1,600 mg/kg (rat) |

- Primary irritant effect:

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

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

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

- Additional toxicological information:

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

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

| | | |
|---------------|--------------------------|----|
| CAS: 80-62-6 | methyl methacrylate | 3 |
| CAS: 128-37-0 | Butylated hydroxytoluene | 3 |
| CAS: 98-82-8 | Cumene | 2B |

- NTP (National Toxicology Program)

| | | |
|--------------|--------|---|
| CAS: 98-82-8 | Cumene | R |
|--------------|--------|---|

12 Ecological information**- Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability:** No further relevant information available.

- Behavior in environmental systems:

- **Bioaccumulative potential:** No further relevant information available.

- **Mobility in soil:** No further relevant information available.

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

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- Results of PBT and vPvB assessment

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects:** No further relevant information available.


13 Disposal considerations**- Waste treatment methods**

- **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:

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

***14 Transport information**

| | |
|---|---------------------|
| - UN-Number | |
| - DOT/TDG, ADR, IMDG, IATA | UN1133 |
| - UN proper shipping name | |
| - DOT/TDG | Adhesives |
| - ADR | UN1133 Adhesives |
| - IMDG, IATA | ADHESIVES |
| - Transport hazard class(es) | |
| - DOT/TDG (Transport dangerous goods): | |
|  | |
| - Class | 3 Flammable liquids |

(Contd. on page 7)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 01/29/2024

Reviewed on 01/26/2024

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 6)

| | |
|---|--|
| - Label | 3 |
| - ADR, IMDG, IATA | |
|  | |
| - Class | 3 Flammable liquids |
| - Label | 3 |
| - Packing group | |
| - DOT/TDG, ADR, IMDG, IATA | III |
| - Environmental hazards: | |
| - Marine pollutant: | No |
| - Special precautions for user | Warning: Flammable liquids |
| - Hazard identification number (Kemler code): | - |
| - EMS Number: | F-E,S-D |
| - Stowage Category | A |
| - Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| - Transport/Additional information: | |
| - DOT/TDG | |
| - Quantity limitations | On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L |
| - ADR | |
| - Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml |
| - 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

No further relevant information available.

- Sara

- Section 355 (extremely hazardous substances):

None of the ingredients is listed.

- Section 313 (Specific toxic chemical listings):

| | |
|---------------|------------------------------|
| CAS: 80-62-6 | methyl methacrylate |
| CAS: 108-31-6 | maleic anhydride |
| CAS: 80-15-9 | dimethylbenzyl hydroperoxide |
| | Monofunctional acid ester |
| CAS: 98-82-8 | Cumene |

- TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

- Canadian substance listings:

- Canadian Domestic Substances List (DSL)

| | |
|---------------|-------------------------------|
| CAS: 80-62-6 | methyl methacrylate |
| CAS: 688-84-6 | 2-ethylhexyl methacrylate |
| | Impact modifying resin |
| | Chlorosulfanated polyethylene |
| CAS: 868-77-9 | 2-hydroxyethyl methacrylate |
| CAS: 108-31-6 | maleic anhydride |
| CAS: 614-45-9 | tert-butyl perbenzoate |

(Contd. on page 8)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 01/29/2024

Reviewed on 01/26/2024

Trade name: Vibra-TITE® Methacrylate Adhesives

(Contd. of page 7)

| | |
|---------------|------------------------------|
| CAS: 80-15-9 | dimethylbenzyl hydroperoxide |
| | Monofunctional acid ester |
| | Wax |
| CAS: 128-37-0 | Butylated hydroxytoluene |
| CAS: 150-76-5 | mequinol |
| CAS: 98-82-8 | Cumene |
| | Polymerization inhibitor |
| CAS: 617-94-7 | 2-Phenyl-2-propanol |

- Canadian Non-Domestic Substances List (NDSL)

None of the ingredients is listed.

- Canadian Ingredient Disclosure list (limit 0.1%)

CAS: 108-31-6 maleic anhydride

- Canadian Ingredient Disclosure list (limit 1%)

| | |
|---------------|-----------------------------|
| CAS: 80-62-6 | methyl methacrylate |
| CAS: 688-84-6 | 2-ethylhexyl methacrylate |
| CAS: 868-77-9 | 2-hydroxyethyl methacrylate |

- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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

- Contact: Safety, Health and Environmental Affairs

- Classification System:

- HMIS-ratings (scale 0 - 4)

| | | |
|------------|---|----------------|
| HEALTH | 2 | Health = *2 |
| FIRE | 3 | Fire = 3 |
| REACTIVITY | 0 | Reactivity = 0 |

- NFPA ratings (scale 0 - 4)

| | |
|---|----------------|
| 3 | Health = 2 |
| 2 | Fire = 3 |
| 0 | Reactivity = 0 |

- Date of the latest revision of the safety data sheet 01/29/2024

- Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative

- * Data compared to the previous version altered.

- Disclaimer

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.