

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:** PB320 All Purpose - Medium Set Time; High Strength - Part A
- **Part number:** VTPB320A
- **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

Carcinogenicity – Category 2

H351 Suspected of causing cancer.



GHS05 Corrosion

Serious Eye Damage - Category 1

H318 Causes serious eye damage.



GHS07

Skin Irritation - Category 2

H315 Causes skin 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 GHS05 GHS07 GHS08

- **Signal word** Danger

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

- methyl methacrylate
- Methacrylic acid
- N,N-dimethyl-p-toluidine
- Rosin
- Monofunctional acid ester

- **Hazard statements**

H225 Highly flammable liquid and vapour.

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H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H317 May cause an allergic skin reaction.
 H351 Suspected of causing cancer.
 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.
 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.
 P310 Immediately call a poison center/doctor.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 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.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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	45 – 70% w/w
CAS: 79-41-4	Methacrylic acid Acute Toxicity (Dermal) – Category 3, H311; Skin Corrosion - Category 1A, H314; Serious Eye Damage - Category 1, H318; Acute Toxicity (Oral) - Category 4, H302; Acute Toxicity (Inhalation) - Category 4, H332; Specific Target Organ Toxicity - Single Exposure - Category 3, H335; Flammable Liquids - Category 4, H227	1 – 5% w/w
CAS: 99-97-8	N,N-dimethyl-p-toluidine Acute Toxicity (Oral) - Category 3, H301; Acute Toxicity (Dermal) – Category 3, H311; Acute Toxicity (Inhalation) - Category 3, H331; Carcinogenicity – Category 2, H351; Specific Target Organ Toxicity - Repeated Exposure - Category 2, H373; Flammable Liquids - Category 4, H227	0.1 – 1% w/w
CAS: 8050-09-7	Rosin Skin Sensitizer - Category 1, H317	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

4 First-aid measures

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

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

- 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.

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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:** 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).
 - Dispose contaminated material as waste according to section 13.
 - Ensure adequate ventilation.
 - Do not flush with water or aqueous cleansing agents
 - Dispose of the collected material according to regulations.
- **Reference to other sections**
 - See Section 7 for information on safe handling.
 - See Section 8 for information on personal protection equipment.
 - See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
 - **Precautions for safe handling**
 - Ensure good ventilation/exhaustion at the workplace.
 - Prevent formation of aerosols.
 - **Information about protection against explosions and fires:**
 - Keep ignition sources away - Do not smoke.
 - Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
 - **Storage:**
 - **Requirements to be met by storerooms and receptacles:** 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.

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
REL (USA)	TWA: 410 mg/m ³ , 100 ppm
TLV (USA)	STEL: 100 ppm TWA: 50 ppm DSEN, A4

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CAS: 79-41-4 Methacrylic acid	
EL (Canada)	TWA: 20 ppm
EV (Canada)	TWA: 70 mg/m ³ , 20 ppm
REL (USA)	TWA: 70 mg/m ³ , 20 ppm Skin
TLV (USA)	TWA: 20 ppm
CAS: 99-97-8 N,N-dimethyl-p-toluidine	
EL (Canada)	IARC 2B
WEEL (USA)	TWA: 0.5 ppm
CAS: 8050-09-7 Rosin	
EL (Canada)	S(D), S(R)
TLV (USA)	TWA: 0.001* mg/m ³ *inhalable fraction, DSEN, RSEN

- **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

- **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.

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- 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:	160,000 mPas
- Kinematic:	Not determined.
- Solvent content:	
- Organic solvents:	0.2 %
- Water:	0.2 %
- VOC content:	0.16 % ~ 1.6 g/l / ~ 0.01 lb/gal
- Solids content:	26.2 %
- 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	9,088 mg/kg
Dermal	LD50	8,824 mg/kg
Inhalative	LC50/4 h	159 mg/l

CAS: 80-62-6 methyl methacrylate

Oral	LD50	7,872 mg/kg (rat)
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CAS: 79-41-4 Methacrylic acid

Oral	LD50	1,332 mg/kg (mouse)
Dermal	LD50	500 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/l (ATE)

CAS: 99-97-8 N,N-dimethyl-p-toluidine

Oral	LD50	100 mg/kg (ATE)
Dermal	LD50	300 mg/kg (ATE)
Inhalative	LC50/4 h	3 mg/l (ATE)

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.

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- Additional toxicological information:

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

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

CAS: 80-62-6	methyl methacrylate	3
CAS: 9010-98-4	Neoprene rubber	3
CAS: 9003-55-8	Styrene-Butadiene-Styrene Polymer	3
CAS: 99-97-8	N,N-dimethyl-p-toluidine	2B
CAS: 14807-96-6	Soapstone	3

- NTP (National Toxicology Program)

CAS: 130-15-4	1,4-naphthoquinone	R
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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
- Label 3**- ADR, IMDG, IATA****- Class** 3 Flammable liquids
- Label 3

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- Packing group - DOT/TDG, ADR, IMDG, IATA	III
- Environmental hazards: - Marine pollutant:	No
- Special precautions for user - Hazard identification number (Kemler code): - EMS Number: - Segregation groups - Stowage Category	Warning: Flammable liquids - F-E,S-D (SGG1) Acids 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) - Excepted quantities (EQ)	5L 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
	Monofunctional acid ester

- TSCA (Toxic Substances Control Act):

methyl methacrylate	ACTIVE
Impact modifying resin	ACTIVE
Neoprene rubber	ACTIVE
Methacrylic acid	ACTIVE
Styrene-Butadiene-Styrene Polymer	ACTIVE
Styrene-Isoprene-Styrene Polymer	ACTIVE
N,N-dimethyl-p-toluidine	ACTIVE
Wax	ACTIVE
Rosin	ACTIVE
Monofunctional acid ester	ACTIVE
Deionized water	ACTIVE
propane-1,2-diol	ACTIVE
Soapstone	ACTIVE
N-isopropylhydroxylamine	ACTIVE
Polymerization inhibitor	ACTIVE
tetrasodium ethylenediaminetetraacetate	ACTIVE
1,4-naphthoquinone	ACTIVE
2-Propanone, oxime	ACTIVE

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- Canadian substance listings:**- Canadian Domestic Substances List (DSL)**

CAS: 80-62-6	methyl methacrylate
	Impact modifying resin
CAS: 9010-98-4	Neoprene rubber
CAS: 79-41-4	Methacrylic acid
CAS: 9003-55-8	Styrene-Butadiene-Styrene Polymer
CAS: 25038-32-8	Styrene-Isoprene-Styrene Polymer
CAS: 26602-62-0	Styrene-Isoprene-Butadiene-Styrene Polymer
CAS: 99-97-8	N,N-dimethyl-p-toluidine
	Wax
CAS: 8050-09-7	Rosin
	Monofunctional acid ester
CAS: 7732-18-5	Deionized water
CAS: 57-55-6	propane-1,2-diol
CAS: 14807-96-6	Soapstone
CAS: 5080-22-8	N-isopropylhydroxylamine
	Polymerization inhibitor
CAS: 64-02-8	tetrasodium ethylenediaminetetraacetate
CAS: 130-15-4	1,4-naphthoquinone

- Canadian Non-Domestic Substances List (NDSL)

CAS: 127-06-0 2-Propanone, oxime

- Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

- Canadian Ingredient Disclosure list (limit 1%)

CAS: 80-62-6 methyl methacrylate

CAS: 79-41-4 Methacrylic acid

- 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	3	Health = 3
FIRE	3	Fire = 3
REACTIVITY	0	Reactivity = 0

- NFPA ratings (scale 0 - 4)

3	Health = 3
3	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**

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