

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

Printing date 01/23/2024

Reviewed on 01/09/2024

**1 Identification****- Product identifier**

- **Trade name:** Vibra-TITE® Structural Adhesive
- **Synonyms:** 230 Structural Adhesive - UV, Heat, or Activator Cure
- **Part number:** VT230
- **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**

GHS05 Corrosion

Eye Damage 1      H318 Causes serious eye damage.



GHS07

Skin Irritation 2      H315 Causes skin irritation.  
Sensitization - Skin 1      H317 May cause an allergic skin reaction.**- 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:**

acrylic acid  
2-hydroxyethyl methacrylate  
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

**- Hazard statements**

H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H317 May cause an allergic skin reaction.

**- Precautionary statements**

P261      Avoid breathing dust/fume/gas/mist/vapors/spray  
P264      Wash thoroughly after handling.  
P272      Contaminated work clothing must not be allowed out of the workplace.  
P280      Wear protective gloves.  
P280      Wear eye protection / face protection.  
P302+P352      If on skin: Wash with plenty of water.  
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).

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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.
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/information on ingredients

**- Chemical characterization: Mixtures**

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

**- Dangerous components:**

CAS: 868-77-9	2-hydroxyethyl methacrylate Skin Irritation 2, H315; Eye Irritation 2A, H319; Sensitization - Skin 1, H317	10 – 19%
CAS: 7534-94-3	Isobornyl Methacrylate Skin Irritation 2, H315; Eye Irritation 2A, H319	10 – 19%
CAS: 79-10-7	acrylic acid Flammable Liquids 3, H226; Skin Corrosion 1A, H314; Eye Damage 1, H318; Acute Toxicity - Oral 4, H302; Acute Toxicity - Dermal 4, H312; Acute Toxicity - Inhalation 4, H332	4.50%
CAS: 7473-98-5	2-hydroxy-2-methylpropiophenone Acute Toxicity - Oral 4, H302	1 – 4%
CAS: 614-45-9	tert-butyl perbenzoate Organic Peroxides - Type C, H242; Acute Toxicity - Oral 4, H302; Skin Irritation 2, H315; Eye Irritation 2A, H319; Specific Target Organ Toxicity - Single Exposure 3, H335	≤ 1%
CAS: 162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide Sensitization - Skin 1A, 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.

### 5 Fire-fighting measures

**- Extinguishing media****- Suitable extinguishing agents:**

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**- Special hazards arising from the substance or mixture** No further relevant information available.**- Advice for firefighters****- Protective equipment:**

Wear self-contained respiratory protective device.  
Wear fully protective suit.

### 6 Accidental release measures

**- Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation  
Wear protective clothing.

**- Environmental precautions:** Do not allow to enter sewers/ surface or ground water.**- Methods and material for containment and cleaning up:**

Ensure adequate ventilation.  
Dispose of the collected material according to regulations.

**- Reference to other sections**

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.

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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:** No special measures required.

### - 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 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: 79-10-7 acrylic acid

REL Long-term value: 6 mg/m<sup>3</sup>, 2 ppm  
Skin

TLV Long-term value: 2 ppm  
Skin, A3

- **Additional information:** The lists that were valid during the creation were used as basis.

### - Exposure controls

#### - Personal protective equipment:

##### - General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.

##### - Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

##### - Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

##### - Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Nitrile rubber, NBR

##### - Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Required use of safety glasses

- **Body protection:** Protective work clothing

## 9 Physical and chemical properties

### - Information on basic physical and chemical properties

#### - General Information

##### - Appearance:

###### - Form:

Liquid

###### - Color:

According to product specification

##### - Odor:

Characteristic

##### - Odor threshold:

Not determined.

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- <b>pH-value:</b>	Not determined.
- <b>Change in condition</b>	
- <b>Melting point/Melting range:</b>	Undetermined.
- <b>Boiling point/Boiling range:</b>	≥ 213 °C (≥ 415.4 °F)
- <b>Flash point:</b>	> 94 °C (> 201.2 °F)
- <b>Flammability (solid, gaseous):</b>	Not applicable.
- <b>Decomposition temperature:</b>	Not determined.
- <b>Ignition temperature:</b>	Product is not selfigniting.
- <b>Danger of explosion:</b>	Product does not present an explosion hazard.
- <b>Explosion limits:</b>	
- <b>Lower:</b>	Not determined.
- <b>Upper:</b>	Not determined.
- <b>Vapor pressure at 68 °C (154.4 °F):</b>	≤ 1.3 hPa (≤ 1 mm Hg)
- <b>Density:</b>	Not determined.
- <b>Relative density</b>	Not determined.
- <b>Vapor density</b>	Not determined.
- <b>Evaporation rate</b>	Not determined.
- <b>Solubility in / Miscibility with</b>	
- <b>Water:</b>	Not miscible or difficult to mix.
- <b>Partition coefficient (n-octanol/water):</b>	Not determined.
- <b>Viscosity:</b>	
- <b>Dynamic:</b>	Not determined.
- <b>Kinematic:</b>	Not determined.
- <b>Solvent content:</b>	
- <b>Organic solvents:</b>	0.1 %
- <b>Water:</b>	0.0 %
- <b>VOC content:</b>	0.12 %
	1.2 g/l / 0.01 lb/gal
- <b>Solids content:</b>	3.3 %
- <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	5,026 mg/kg (rat)
Dermal	LD50	6,222 mg/kg (rabbit)
Inhalative	LC50/4 h	244 mg/l

#### CAS: 868-77-9 2-hydroxyethyl methacrylate

Oral	LD50	5,050 mg/kg (rat)
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#### CAS: 79-10-7 acrylic acid

Oral	LD50	250 mg/kg (rat)
Dermal	LD50	280 mg/kg (rabbit)

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Inhalative	LC50/4 h	11 mg/l (ATE)
<b>CAS: 7473-98-5 2-hydroxy-2-methylpropiofenone</b>		
Oral	LD50	1,694 mg/kg (rat)
<b>CAS: 614-45-9 tert-butyl perbenzoate</b>		
Oral	LD50	1,012 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: 79-10-7	acrylic acid	3
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**- NTP (National Toxicology Program)**

CAS: 130-15-4	1,4-naphthoquinone	R
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**- OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

**- Toxicity**

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

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

**- Behavior in environmental systems:**

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

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

**- Additional ecological information:**

**- General notes:**

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

**- 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

<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.

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- |  |                 |
|--|-----------------|
| <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**  
No further relevant information available.

- Sara

**- Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

**- Section 313 (Specific toxic chemical listings):**

CAS: 79-10-7 acrylic acid

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

All components have the value ACTIVE.

**- Hazardous Air Pollutants**

CAS: 79-10-7 acrylic acid

CAS: 130-15-4 1,4-naphthoquinone

**- Proposition 65**

**- Chemicals known to cause cancer:**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

**- Carcinogenic categories**

**- EPA (Environmental Protection Agency)**

None of the ingredients is listed.

**- TLV (Threshold Limit Value)**

CAS: 79-10-7 acrylic acid

A4

**- NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

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

## 16 Other information

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

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

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

HEALTH	3	Health = *3
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

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

3	1	0	Health = 3
			Fire = 1
			Reactivity = 0

- **Date of preparation / last revision** 01/23/2024

**- 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  
 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

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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  
 NIOSH: National Institute for Occupational Safety  
 OSHA: Occupational Safety & Health  
 TLV: Threshold Limit Value  
 PEL: Permissible Exposure Limit  
 REL: Recommended Exposure Limit  
 Flammable Liquids 3: Flammable liquids – Category 3  
 Organic Peroxides - Type C: Organic peroxides – Type C/D  
 Acute Toxicity - Oral 4: Acute toxicity – Category 4  
 Skin Corrosion 1A: Skin corrosion/irritation – Category 1A  
 Skin Irritation 2: Skin corrosion/irritation – Category 2  
 Eye Damage 1: Serious eye damage/eye irritation – Category 1  
 Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A  
 Sensitization - Skin 1: Skin sensitisation – Category 1  
 Sensitization - Skin 1A: Skin sensitisation – Category 1A  
 Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

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

- **Disclaimer**

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