

**Kit Components**

Product code	Description
<b>VT911</b>	<b>Vibra-TITE® Epoxy 911 Epoxy</b>

## Components:

VT911A	Vibra-TITE® Epoxy 911 Epoxy - Part A
VT911B	Vibra-TITE® Epoxy 911 Epoxy - Part B

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

Printing date 04/30/2019

Reviewed on 04/30/2019

**1 Identification**

**- Product identifier**

- **Trade name:** Vibra-TITE® Epoxy
- **Synonyms:** 911 Epoxy - Part A
- **Part number:** VT911A
- **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**



GHS08 Health hazard

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.  
STOT SE 3 H335 May cause respiratory irritation.

**- Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

**- Hazard pictograms**



GHS07 GHS08

- **Signal word** Danger

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

Bisphenol-A epoxy resin  
Silicon Dioxide  
Epoxy Resin

**- Hazard statements**

H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.  
H372 Causes damage to organs through prolonged or repeated exposure.

**- Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray  
P264 Wash face, hands and any exposed skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P272 Contaminated work clothing must not be allowed out of the workplace.  
P280 Wear protective gloves.

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Trade name: Vibra-TITE® Epoxy

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P280	Wear eye protection / face protection.
P302+P352	If on skin: Wash with plenty of water.
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.
P314	Get medical advice/attention if you feel unwell.
P362+P364	Take off contaminated clothing and wash it before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P321	Specific treatment (see on this label).
P337+P313	If eye irritation persists: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

**- Classification system:****- NFPA ratings (scale 0 - 4)**

2	1	0	Health = 2
			Fire = 1
			Reactivity = 0

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

HEALTH 2	Health = *2
FIRE 1	Fire = 1
REACTIVITY 0	Reactivity = 0

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

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

### 3 Composition/information on ingredients

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

**- Dangerous components:**

CAS: 25068-38-6	Bisphenol-A epoxy resin	Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	40 – 49%
CAS: 14808-60-7	Silicon Dioxide	Carc. 1A, H350; STOT RE 1, H372	30 – 39%
CAS: 14228-73-0	Epoxy Resin	Skin Irrit. 2, H315; Skin Sens. 1B, H317; Eye Irrit. 2B, H320	10 – 19%
CAS: 67762-90-7	Amorphous Silica	Combustible Dust	1 – 4%
	Pigment	Flam. Liq. 3, H226; Carc. 2, H351; Skin Irrit. 2, H315; Eye Irrit. 2B, H320	≤ 1%

### 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.

- **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

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

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

Use fire fighting measures that suit the environment.

**- For safety reasons unsuitable extinguishing agents:** Water**- Special hazards arising from the substance or mixture** No further relevant information available.

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Reviewed on 04/30/2019

Trade name: Vibra-TITE® Epoxy

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**- Advice for firefighters****- Protective equipment:**

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

## 6 Accidental release measures

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

- Wear protective equipment. Keep unprotected persons away.
- Ensure adequate ventilation
- Wear protective clothing.

**- Environmental precautions:**

- Inform respective authorities in case of seepage into water course or sewage system.
- Do not allow to enter sewers/ surface or ground water.

**- Methods and material for containment and cleaning up:**

- Dispose contaminated material as waste according to item 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 item 7.**- Control parameters****- Components with limit values that require monitoring at the workplace:**

- The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
- At this time, the other constituents have no known exposure limits.

**CAS: 14808-60-7 Silicon Dioxide**

PEL	Long-term value: 0.05* mg/m <sup>3</sup> *resp. dust; 30mg/m <sup>3</sup> /%SiO <sub>2</sub> +2
REL	Long-term value: 0.05* mg/m <sup>3</sup> *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m <sup>3</sup> *as respirable fraction

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

**- Exposure controls****- Personal protective equipment:****- General protective and hygienic measures:**

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

**- Breathing equipment:**

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

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Trade name: Vibra-TITE® Epoxy

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**- Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**- Material of gloves**

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

Nitrile rubber, NBR

**- Penetration time of glove material**

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

**- As protection from splashes gloves made of the following materials are suitable:** Nitrile rubber, NBR

**- 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:** Highly viscous  
**- Color:** Grey

**- Odor:** Characteristic**- Odor threshold:** Not determined.**- pH-value:** Not determined.**- Change in condition**

**- Melting point/Melting range:** Undetermined.  
**- Boiling point/Boiling range:**  $\geq 260\text{ }^{\circ}\text{C}$  ( $\geq 500\text{ }^{\circ}\text{F}$ )

**- Flash point:** 111 °C (231.8 °F)**- Flammability (solid, gaseous):** Not applicable.**- Decomposition temperature:** Not determined.**- Auto igniting:** Product is not selfigniting.**- Danger of explosion:** Product does not present an explosion hazard.**- Explosion limits:****- Lower:** Not determined.**- Upper:** Not determined.**- Vapor pressure at 1732 °C (3,149.6 °F):**  $\leq 13.5\text{ hPa}$  ( $\leq 10.1\text{ mm Hg}$ )**- Density:** Not determined.**- Relative density:** Not determined.**- Vapor density:** Not determined.**- Evaporation rate:** Not determined.**- Solubility in / Miscibility with****- Water:** Not miscible or difficult to mix.**- Partition coefficient (n-octanol/water):** Not determined.**- Viscosity:****- Dynamic:** Not determined.**- Kinematic:** Not determined.**- Solvent content:**

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

**- Solids content:** 44.0 %

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- **Other information** No further relevant information available.

## 10 Stability and reactivity

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

## 11 Toxicological information

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

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

### ATE (Acute Toxicity Estimate)

Oral	LD50	> 20,000 mg/kg (rat)
Dermal	LD50	> 20,000 mg/kg (rabbit)

### CAS: 14228-73-0 Epoxy Resin

Oral	LD50	> 2,000 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rabbit)

### - **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:  
Harmful  
Irritant

### - **Carcinogenic categories**

#### - **IARC (International Agency for Research on Cancer)**

CAS: 14808-60-7	Silicon Dioxide	1
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#### - **NTP (National Toxicology Program)**

CAS: 14808-60-7	Silicon Dioxide	K
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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.
- **Ecotoxicological effects:**
  - **Remark:** Toxic for fish
- **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.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

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Trade name: Vibra-TITE® Epoxy

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## 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, IMDG, IATA	UN3082
- UN proper shipping name - DOT  - IMDG  - IATA	Environmentally hazardous substance, liquid, n.o.s. (LIQUID EPOXY RESIN) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIQUID EPOXY RESIN), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIQUID EPOXY RESIN)
- Transport hazard class(es) - DOT, IMDG, IATA    - Class - Label	9 Miscellaneous dangerous substances and articles 9
- Packing group - DOT, IMDG, IATA	III
- Environmental hazards:  - Marine pollutant:  - Special marking (IATA):	Product contains environmentally hazardous substances: LIQUID EPOXY RESIN Yes Symbol (fish and tree) Symbol (fish and tree)
- Special precautions for user - Danger code (Kemler): - EMS Number: - Stowage Category	Warning: Miscellaneous dangerous substances and articles 90 F-A,S-F A
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
- Transport/Additional information:  - DOT - Quantity limitations  - Remarks:	On passenger aircraft/rail: No limit On cargo aircraft only: No limit Special marking with the symbol (fish and tree).
- 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 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIQUID EPOXY RESIN), 9, III

## \*15 Regulatory information

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

- Sara

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

None of the ingredients is listed.

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Trade name: Vibra-TITE® Epoxy

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<b>- Section 313 (Specific toxic chemical listings):</b>	
None of the ingredients is listed.	
<b>- TSCA (Toxic Substances Control Act):</b>	
Bisphenol-A epoxy resin	ACTIVE
Silicon Dioxide	ACTIVE
Epoxy Resin	ACTIVE
Amorphous Silica	ACTIVE
Pigment	ACTIVE
<b>- Hazardous Air Pollutants</b>	
None of the ingredients is listed.	
<b>- Proposition 65</b>	
<b>- Chemicals known to cause cancer:</b>	
CAS: 14808-60-7	Silicon Dioxide
	Calcium Silicate
	Pigment
<b>- Chemicals known to cause reproductive toxicity for females:</b>	
Calcium Silicate	
<b>- Chemicals known to cause reproductive toxicity for males:</b>	
Calcium Silicate	
<b>- Chemicals known to cause developmental toxicity:</b>	
Calcium Silicate	
<b>- Carcinogenic categories</b>	
<b>- EPA (Environmental Protection Agency)</b>	
None of the ingredients is listed.	
<b>- TLV (Threshold Limit Value established by ACGIH)</b>	
CAS: 14808-60-7	Silicon Dioxide <span style="float: right;">A2</span>
<b>- NIOSH-Ca (National Institute for Occupational Safety and Health)</b>	
CAS: 14808-60-7	Silicon Dioxide
<b>- Chemical safety assessment:</b> A Chemical Safety Assessment has not been carried out.	

## 16 Other information

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

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

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

**- Date of preparation / last revision** 04/30/2019 / 15

**- Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 DOT: US Department of Transportation  
 IATA: International Air Transport Association  
 ACGIH: American Conference of Governmental Industrial Hygienists  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 NFPA: National Fire Protection Association (USA)  
 HMIS: Hazardous Materials Identification System (USA)  
 VOC: Volatile Organic Compounds (USA, EU)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 NIOSH: National Institute for Occupational Safety  
 OSHA: Occupational Safety & Health  
 TLV: Threshold Limit Value  
 PEL: Permissible Exposure Limit  
 REL: Recommended Exposure Limit  
 Flam. Liq. 3: Flammable liquids – Category 3  
 Skin Irrit. 2: Skin corrosion/irritation – Category 2  
 Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A  
 Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B  
 Skin Sens. 1: Skin sensitisation – Category 1  
 Skin Sens. 1B: Skin sensitisation – Category 1B  
 Carc. 1A: Carcinogenicity – Category 1A  
 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

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

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**Trade name:** Vibra-TITE® Epoxy

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**- Disclaimer**

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**1 Identification**

**- Product identifier**

- **Trade name:** Vibra-TITE® Epoxy
- **Synonyms:** 911 Epoxy - Part B
- **Part number:** VT911B
- **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**



GHS08 Health hazard

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

**- Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

**- Hazard pictograms**



GHS05 GHS07 GHS08

- **Signal word** Danger

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

Mercaptan-terminated polymer  
Aminophenol  
Silicon Dioxide

**- Hazard statements**

H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H317 May cause an allergic skin reaction.  
H372 Causes damage to organs through prolonged or repeated exposure.

**- Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray  
P264 Wash face, hands and any exposed skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P272 Contaminated work clothing must not be allowed out of the workplace.  
P280 Wear protective gloves.

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Trade name: Vibra-TITE® Epoxy

(Contd. of page 1)

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).
P314	Get medical advice/attention if you feel unwell.
P362+P364	Take off contaminated clothing and wash it before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

**- Classification system:****- NFPA ratings (scale 0 - 4)**

	Health = 3 Fire = 1 Reactivity = 0
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**- HMIS-ratings (scale 0 - 4)**

	Health = *3 Fire = 1 Reactivity = 0
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**- Other hazards****- Results of PBT and vPvB assessment**

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

**3 Composition/information on ingredients**

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

**- Dangerous components:**

CAS: 72244-98-5	Mercaptan-terminated polymer Skin Sens. 1B, H317	50 – 59%
CAS: 14808-60-7	Silicon Dioxide Carc. 1A, H350; STOT RE 1, H372	30 – 39%
CAS: 90-72-2	Aminophenol Skin Corr. 1C, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312	4.25%
CAS: 67762-90-7	Amorphous Silica Combustible Dust	1 – 4%

**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. 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:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

Use fire fighting measures that suit the environment.

**- For safety reasons unsuitable extinguishing agents:** Water**- Special hazards arising from the substance or mixture** No further relevant information available.

(Contd. on page 3)

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acc. to OSHA HCS

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Trade name: Vibra-TITE® Epoxy

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**- Advice for firefighters****- Protective equipment:**

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

## 6 Accidental release measures

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

- Wear protective equipment. Keep unprotected persons away.
- Ensure adequate ventilation
- Wear protective clothing.

**- Environmental precautions:**

- Inform respective authorities in case of seepage into water course or sewage system.
- Do not allow to enter sewers/ surface or ground water.

**- Methods and material for containment and cleaning up:**

- Dispose contaminated material as waste according to item 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 item 7.**- Control parameters****- Components with limit values that require monitoring at the workplace:**

- The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
- At this time, the other constituents have no known exposure limits.

**CAS: 14808-60-7 Silicon Dioxide**

PEL	Long-term value: 0.05* mg/m <sup>3</sup> *resp. dust; 30mg/m <sup>3</sup> /%SiO <sub>2</sub> +2
REL	Long-term value: 0.05* mg/m <sup>3</sup> *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m <sup>3</sup> *as respirable fraction

- 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.

**- Breathing equipment:**

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

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Trade name: Vibra-TITE® Epoxy

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**- Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**- Material of gloves**

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

Nitrile rubber, NBR

**- Penetration time of glove material**

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

**- As protection from splashes gloves made of the following materials are suitable:** Nitrile rubber, NBR

**- Eye protection:** Goggles recommended during refilling.

**- Body protection:** Protective work clothing

## 9 Physical and chemical properties

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

Viscous

**- Color:**

Grey

**- Odor:**

Characteristic

**- Odor threshold:**

Not determined.

**- pH-value:**

Not determined.

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

Undetermined.

**- Boiling point/Boiling range:**

≥ 150 °C (≥ 302 °F)

**- Flash point:**

149 °C (300.2 °F)

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

Not applicable.

**- Decomposition temperature:**

Not determined.

**- Auto igniting:**

Product is not selfigniting.

**- Danger of explosion:**

Product does not present an explosion hazard.

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

Not determined.

**- Upper:**

Not determined.

**- Vapor pressure at 1732 °C (3,149.6 °F):** ≤ 13.5 hPa (≤ 10.1 mm Hg)**- Density:**

Not determined.

**- Relative density**

Not determined.

**- Vapor density**

Not determined.

**- Evaporation rate**

Not determined.

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

Not miscible or difficult to mix.

**- Partition coefficient (n-octanol/water):** Not determined.**- Viscosity:****- Dynamic:**

Not determined.

**- Kinematic:**

Not determined.

**- Solvent content:****- VOC content:**

0.00 %

0.0 g/l / 0.00 lb/gal

**- Solids content:**

45.0 %

**- Other information**

No further relevant information available.

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## 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	4,391 mg/kg (rat)
Dermal	LD50	47,059 mg/kg (rat)

#### CAS: 72244-98-5 Mercaptan-terminated polymer

Oral	LD50	2,600 mg/kg (rat)
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#### CAS: 90-72-2 Aminophenol

Oral	LD50	1,200 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rat)

#### - Primary irritant effect:

- **on the skin:** No irritant effect.
- **on the eye:** No 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:

Harmful  
Irritant

#### - Carcinogenic categories

#### - IARC (International Agency for Research on Cancer)

CAS: 14808-60-7	Silicon Dioxide	1
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#### - NTP (National Toxicology Program)

CAS: 14808-60-7	Silicon Dioxide	K
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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.

### - Ecotoxicological effects:

- **Remark:** Very toxic for fish

### - Additional ecological information:

#### - General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Also poisonous for fish and plankton in water bodies.  
Very toxic for aquatic organisms

### - Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

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## 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> - <b>DOT, IMDG, IATA</b>	UN3082
- <b>UN proper shipping name</b> - <b>DOT</b>  - <b>IMDG</b>  - <b>IATA</b>	Environmentally hazardous substance, liquid, n.o.s. (Mercaptan-terminated polymer) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Mercaptan-terminated polymer), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Mercaptan-terminated polymer)
- <b>Transport hazard class(es)</b> - <b>DOT, IMDG, IATA</b>    - <b>Class</b> - <b>Label</b>	9 Miscellaneous dangerous substances and articles 9
- <b>Packing group</b> - <b>DOT, IMDG, IATA</b>	III
- <b>Environmental hazards:</b>  - <b>Marine pollutant:</b>  - <b>Special marking (IATA):</b>	Product contains environmentally hazardous substances: Mercaptan-terminated polymer No Yes (DOT) Symbol (fish and tree) Symbol (fish and tree)
- <b>Special precautions for user</b> - <b>Danger code (Kemler):</b> - <b>EMS Number:</b> - <b>Stowage Category</b>	Warning: Miscellaneous dangerous substances and articles 90 F-A,S-F A
- <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
- <b>Transport/Additional information:</b>  - <b>DOT</b> - <b>Quantity limitations</b>  - <b>Remarks:</b>  - <b>IMDG</b> - <b>Limited quantities (LQ)</b> - <b>Excepted quantities (EQ)</b>	On passenger aircraft/rail: No limit On cargo aircraft only: No limit Special marking with the symbol (fish and tree).  5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
- <b>UN "Model Regulation":</b>	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MERCAPTAN-TERMINATED POLYMER), 9, III

## \*15 Regulatory information

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

- Sara

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

None of the ingredients is listed.

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<b>- Section 313 (Specific toxic chemical listings):</b>	
None of the ingredients is listed.	
<b>- TSCA (Toxic Substances Control Act):</b>	
Mercaptan-terminated polymer	ACTIVE
Silicon Dioxide	ACTIVE
Aminophenol	ACTIVE
Amorphous Silica	ACTIVE
Bis (dimethylaminomethyl) phenol	*
<b>- Hazardous Air Pollutants</b>	
None of the ingredients is listed.	
<b>- Proposition 65</b>	
<b>- Chemicals known to cause cancer:</b>	
CAS: 14808-60-7	Silicon Dioxide
	Calcium Silicate
<b>- Chemicals known to cause reproductive toxicity for females:</b>	
Calcium Silicate	
<b>- Chemicals known to cause reproductive toxicity for males:</b>	
Calcium Silicate	
<b>- Chemicals known to cause developmental toxicity:</b>	
Calcium Silicate	
<b>- Carcinogenic categories</b>	
<b>- EPA (Environmental Protection Agency)</b>	
None of the ingredients is listed.	
<b>- TLV (Threshold Limit Value established by ACGIH)</b>	
CAS: 14808-60-7	Silicon Dioxide A2
<b>- NIOSH-Ca (National Institute for Occupational Safety and Health)</b>	
CAS: 14808-60-7	Silicon Dioxide
<b>- Chemical safety assessment:</b> A Chemical Safety Assessment has not been carried out.	

## 16 Other information

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

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

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

**- Date of preparation / last revision** 04/30/2019 / 14

**- Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 DOT: US Department of Transportation  
 IATA: International Air Transport Association  
 ACGIH: American Conference of Governmental Industrial Hygienists  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 NFPA: National Fire Protection Association (USA)  
 HMIS: Hazardous Materials Identification System (USA)  
 VOC: Volatile Organic Compounds (USA, EU)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 NIOSH: National Institute for Occupational Safety  
 OSHA: Occupational Safety & Health  
 TLV: Threshold Limit Value  
 PEL: Permissible Exposure Limit  
 REL: Recommended Exposure Limit  
 Acute Tox. 4: Acute toxicity – Category 4  
 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  
 Skin Sens. 1: Skin sensitisation – Category 1  
 Skin Sens. 1B: Skin sensitisation – Category 1B  
 Carc. 1A: Carcinogenicity – Category 1A  
 STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

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

**- Disclaimer**

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English counterpart, the English version shall supersede.

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