

Kit Components

Product code	Description
VT911	Vibra-TITE® Epoxy 911 Epoxy

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 03/21/2017

Reviewed on 11/28/2016

1 Identification**- Product identifier**

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

- 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

Carc. 1A H350 May cause cancer.



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
Pigment

- Hazard statements

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H350 May cause cancer.
H335 May cause respiratory irritation.

- Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P280 Wear protective gloves.
P280 Wear eye protection / face protection.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing must not be allowed out of the workplace.
P264 Wash face, hands and any exposed skin thoroughly after handling.

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/21/2017

Reviewed on 11/28/2016

Trade name: Vibra-TITE® Epoxy

(Contd. of page 1)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.
P302+P352	IF ON SKIN: Wash with plenty of water.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

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

HEALTH	1	Health = *1
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:

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%
14808-60-7	Silicon Dioxide	Carc. 1A, H350; Acute Tox. 4, H332	30-39%
	Epoxy Resin	Skin Irrit. 2, H315; Skin Sens. 1B, H317; Eye Irrit. 2B, H320	10-19%
	Pigment	Flam. Liq. 3, H226; Carc. 2, H351	≤ 1.00%

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:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire fighting measures that suit the environment.

- **Special hazards arising from the substance or mixture** No further relevant information available.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/21/2017

Reviewed on 11/28/2016

Trade name: Vibra-TITE® Epoxy

(Contd. of page 2)

- **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**
 - 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.
 - 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.
- **Protective Action Criteria for Chemicals**

- PAC-1:

25068-38-6	Bisphenol-A epoxy resin	90 mg/m ³
14808-60-7	Silicon Dioxide	0.075 mg/m ³

- PAC-2:

25068-38-6	Bisphenol-A epoxy resin	990 mg/m ³
14808-60-7	Silicon Dioxide	33 mg/m ³

- PAC-3:

25068-38-6	Bisphenol-A epoxy resin	5,900 mg/m ³
14808-60-7	Silicon Dioxide	200 mg/m ³

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 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.

14808-60-7 Silicon Dioxide

PEL	see Quartz listing
REL	Long-term value: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m ³ *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.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/21/2017

Reviewed on 11/28/2016

Trade name: Vibra-TITE® Epoxy

(Contd. of page 3)

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.

- 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:** 2.230 °C (36 °F)

- **Flash point:** 111 °C (232 °F)

- **Flammability (solid, gaseous):** Not applicable.

- Ignition temperature:

- **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:** Not determined.

- Density:

- **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.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/21/2017

Reviewed on 11/28/2016

Trade name: Vibra-TITE® Epoxy

(Contd. of page 4)

- Viscosity:	
- Dynamic:	Not determined.
- Kinematic:	Not determined.
- Solvent content:	
- Organic solvents:	0.0 %
- VOC content:	0.0 g/l / 0.00 lb/gl
- Solids content:	89.0 %
- 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:

14808-60-7 Silicon Dioxide

Inhalative LC50/4 h 11 mg/l (ATE)

Epoxy Resin

Oral LD50 >2000 mg/kg (rat)

Dermal LD50 >2000 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)

14808-60-7 Silicon Dioxide

1

- NTP (National Toxicology Program)

14808-60-7 Silicon Dioxide

K

- 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

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/21/2017

Reviewed on 11/28/2016

Trade name: Vibra-TITE® Epoxy

(Contd. of page 5)

- Results of PBT and vPvB assessment

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

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

13 Disposal considerations

- Waste treatment methods

- **Recommendation:** Must not be disposed 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	not regulated UN3082
- UN proper shipping name - DOT - IMDG - IATA	not regulated ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700))
- Transport hazard class(es) - DOT - Class - IMDG, IATA  - Class - Label	not regulated 9 Miscellaneous dangerous substances and articles 9
- Packing group - DOT - IMDG, IATA	not regulated III
- Environmental hazards: - Marine pollutant: - Special marking (IATA):	Product contains environmentally hazardous substances: reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 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: - 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

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/21/2017

Reviewed on 11/28/2016

Trade name: Vibra-TITE® Epoxy

(Contd. of page 6)

- UN "Model Regulation":

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN); EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT ≤ 700)), 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.

- Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

- TSCA (Toxic Substances Control Act):

Bisphenol-A epoxy resin

Silicon Dioxide

- Proposition 65**- Chemicals known to cause cancer:**

14808-60-7 Silicon Dioxide

- 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 established by ACGIH)

14808-60-7 Silicon Dioxide

A2

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

14808-60-7 Silicon Dioxide

- 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**- Date of preparation / last revision** 03/21/2017 / 8**- 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

Acute Tox. 4: Acute toxicity – Category 4

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

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/21/2017

Reviewed on 11/28/2016

Trade name: Vibra-TITE® Epoxy

(Contd. of page 7)

Carc. 1A: Carcinogenicity – Category 1A
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

- * **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.

Safety Data Sheet
acc. to OSHA HCS

Printing date 03/21/2017

Reviewed on 03/17/2017

1 Identification

- Product identifier

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

- 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

Carc. 1A H350 May cause cancer.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye 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:

Silicon Dioxide

- Hazard statements

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H350 May cause cancer.

- Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P280 Wear protective gloves.
P280 Wear eye protection / face protection.
P264 Wash face, hands and any exposed skin thoroughly after handling.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P302+P352 IF ON SKIN: Wash with plenty of water.
P321 Specific treatment (see on this label).
P405 Store locked up.

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/21/2017

Reviewed on 03/17/2017

Trade name: Vibra-TITE® Epoxy

(Contd. of page 1)

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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

	Mercaptan-terminated polymer	Skin Irrit. 2, H315; Eye Irrit. 2B, H320	50-59%
14808-60-7	Silicon Dioxide	Carc. 1A, H350; Acute Tox. 4, H332	30-39%
	Curing Agent	Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2A, H319	5-9%

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. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

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.

Use fire fighting measures that suit the environment.

- Special hazards arising from the substance or mixture No further relevant information available.

- 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

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:

Dispose contaminated material as waste according to item 13.

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.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/21/2017

Reviewed on 03/17/2017

Trade name: Vibra-TITE® Epoxy

(Contd. of page 2)

See Section 13 for disposal information.

- Protective Action Criteria for Chemicals

- PAC-1:		
14808-60-7	Silicon Dioxide	0.075 mg/m ³
- PAC-2:		
14808-60-7	Silicon Dioxide	33 mg/m ³
- PAC-3:		
14808-60-7	Silicon Dioxide	200 mg/m ³

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 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.

14808-60-7 Silicon Dioxide	
PEL	see Quartz listing
REL	Long-term value: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m ³ *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.

- 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

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/21/2017

Reviewed on 03/17/2017

Trade name: Vibra-TITE® Epoxy

(Contd. of page 3)

- Eye protection:



Tightly sealed goggles

- Body protection: Protective work clothing

9 Physical and chemical properties

- Information on basic physical and chemical properties

- General Information

- Appearance:

- Form: Viscous
- Color: Grey
- Odor: Characteristic
- Odor threshold: Not determined.

- pH-value: Not determined.

- Change in condition

- Melting point/Melting range: Undetermined.
- Boiling point/Boiling range: 212 °C (414 °F)

- Flash point: 149 °C (300 °F)

- Flammability (solid, gaseous): Not applicable.

- Ignition temperature:

- 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: Not determined.

- 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:

- Organic solvents: 0.0 %
- VOC content: 0.0 g/l / 0.00 lb/gl

- Solids content: 45.0 %

- 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.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/21/2017

Reviewed on 03/17/2017

Trade name: Vibra-TITE® Epoxy

(Contd. of page 4)

11 Toxicological information

- Information on toxicological effects

- Acute toxicity:

- LD/LC50 values that are relevant for classification:

Mercaptan-terminated polymer		
Oral	LD50	2600 mg/kg (rat)
14808-60-7 Silicon Dioxide		
Inhalative	LC50/4 h	11 mg/l (ATE)
Curing Agent		
Oral	LD50	2169 mg/kg (rabbit)
Dermal	LD50	1242 mg/kg (rabbit)

- Primary irritant effect:

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

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

- **Sensitization:** No sensitizing effects known.

- 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)

14808-60-7	Silicon Dioxide	1
------------	-----------------	---

- NTP (National Toxicology Program)

14808-60-7	Silicon Dioxide	K
------------	-----------------	---

- 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 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, ADN, IMDG, IATA	not regulated
- UN proper shipping name	
- DOT, ADN, IMDG, IATA	not regulated

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/21/2017

Reviewed on 03/17/2017

Trade name: Vibra-TITE® Epoxy

(Contd. of page 5)

- Transport hazard class(es) - DOT, ADN, IMDG, IATA - Class	not regulated
- Packing group - DOT, IMDG, IATA	not regulated
- Environmental hazards: - Marine pollutant:	No
- Special precautions for user	Not applicable.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
- UN "Model Regulation":	not regulated

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.	
- Section 313 (Specific toxic chemical listings):	
None of the ingredients is listed.	
- TSCA (Toxic Substances Control Act):	
Silicon Dioxide	
- Proposition 65	
- Chemicals known to cause cancer:	
14808-60-7	Silicon Dioxide
- 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 established by ACGIH)	
14808-60-7	Silicon Dioxide A2
- NIOSH-Ca (National Institute for Occupational Safety and Health)	
14808-60-7	Silicon Dioxide
- 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
- **Date of preparation / last revision** 03/21/2017 / 7

- **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

(Contd. on page 7)

Safety Data Sheet
acc. to OSHA HCS

Printing date 03/21/2017

Reviewed on 03/17/2017

Trade name: Vibra-TITE® Epoxy

(Contd. of page 6)

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 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
Carc. 1A: Carcinogenicity – Category 1A

- * **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.