

Kit Components

Product code	Description
VT927	Vibra-TITE® Epoxy 927 High Performance Epoxy

Components:

VT927A	Vibra-TITE® Epoxy 927 High Performance Epoxy - Part A
VT927B	Vibra-TITE® Epoxy 927 High Performance 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:** 927 High Performance Epoxy - Part A
- **Part number:** VT927A
- **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**

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

- Signal word Warning**- Hazard-determining components of labeling:**

Bisphenol-A epoxy resin
Bisphenol F epoxy resin
pentaerythritol tetraacrylate
Acrylic polymer
pentaerythritol triacrylate
hexamethylene diacrylate

- Hazard statements

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

- Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P264 Wash face, hands and any exposed skin thoroughly after handling.
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.
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.

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/30/2019

Reviewed on 04/30/2019

Trade name: Vibra-TITE® Epoxy

(Contd. of page 1)

P312	Call a poison center/doctor if you feel unwell.
P362+P364	Take off contaminated clothing and wash it before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P321	Specific treatment (see on this label).
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)**

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

- HMIS-ratings (scale 0 - 4)

HEALTH 2	FIRE 0	REACTIVITY 0
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Health = 2
Fire = 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	70 – 79%
CAS: 9003-36-5	Bisphenol F epoxy resin Skin Irrit. 2, H315; Skin Sens. 1, H317	10 – 19%
CAS: 4986-89-4	pentaerythritol tetraacrylate Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317	1 – 4%
CAS: 15625-89-5	Acrylic polymer Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317	1 – 4%
CAS: 3524-68-3	pentaerythritol triacrylate Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317	1 – 4%
CAS: 13048-33-4	hexamethylene diacrylate Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317	1 – 4%

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.
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:**

Wear self-contained respiratory protective device.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/30/2019

Reviewed on 04/30/2019

Trade name: Vibra-TITE® Epoxy

(Contd. of page 2)

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:

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.

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 constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

CAS: 15625-89-5 Acrylic polymer	
WEEL	Long-term value: 1 mg/m ³ Skin
CAS: 3524-68-3 pentaerythritol triacrylate	
WEEL	Long-term value: 1 mg/m ³ DSEN
CAS: 13048-33-4 hexamethylene diacrylate	
WEEL	Long-term value: 1 mg/m ³ DSEN

- 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

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/30/2019

Reviewed on 04/30/2019

Trade name: Vibra-TITE® Epoxy

(Contd. of page 3)

- 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:**

Viscous

- Color:

Whitish

- Odor:

Characteristic

- Odor threshold:

Not determined.

- pH-value:

Not determined.

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

Undetermined.

- Boiling point/Boiling range:

≥ 107 °C (≥ 224.6 °F)

- Flash point:

Not applicable.

- 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:

Not determined.

- Density at 20 °C (68 °F):~ 1.18197 g/cm³ (~ 9.86354 lbs/gal)**- Relative density**

Not determined.

- Vapor density

Not determined.

- Evaporation rate

Not determined.

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

Not miscible or difficult to mix.

- Partition coefficient (n-octanol/water): Not determined.**- Viscosity:****- Dynamic at 20 °C (68 °F):**

75,000 mPas

- Kinematic:

Not determined.

- Solvent content:**- Organic solvents:**

3.7 %

- VOC content:

3.68 %

~ 43.5 g/l / ~ 0.36 lb/gal

- Solids content:

1.3 %

- Other information

No further relevant information available.

10 Stability and reactivity

- Reactivity No further relevant information available.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/30/2019

Reviewed on 04/30/2019

Trade name: Vibra-TITE® Epoxy

(Contd. of page 4)

- 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	24,164 mg/kg
Dermal	LD50	> 202,977 mg/kg (rab)

CAS: 3524-68-3 pentaerythritol triacrylate

Oral	LD50	500 mg/kg (ATE)
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CAS: 13048-33-4 hexamethylene diacrylate

Oral	LD50	> 5,000 mg/kg (rat)
Dermal	LD50	> 3,000 mg/kg (rab)

- 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)**

None of the ingredients is listed.

- NTP (National Toxicology Program)

None of the ingredients is listed.

- 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.

13 Disposal considerations

- Waste treatment methods

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

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS


Printing date 04/30/2019

Reviewed on 04/30/2019

Trade name: Vibra-TITE® Epoxy

(Contd. of page 5)

- 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	Environmentally hazardous substance, liquid, n.o.s. (LIQUID EPOXY RESIN, Bisphenol F epoxy resin)
- IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIQUID EPOXY RESIN, Bisphenol F epoxy resin), MARINE POLLUTANT
- IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIQUID EPOXY RESIN, Bisphenol F 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:	Product contains environmentally hazardous substances: LIQUID EPOXY RESIN
- Marine pollutant:	Yes Symbol (fish and tree)
- Special marking (IATA):	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	On passenger aircraft/rail: No limit On cargo aircraft only: No limit
- Remarks:	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, BISPHENOL F 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.

- Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/30/2019

Reviewed on 04/30/2019

Trade name: Vibra-TITE® Epoxy

(Contd. of page 6)

- TSCA (Toxic Substances Control Act):
All components have the value ACTIVE.
- Hazardous Air Pollutants
None of the ingredients is listed.
- 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 established by ACGIH)
None of the ingredients is listed.
- 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

- Date of preparation / last revision 04/30/2019 / 23

- 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 Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

- * Data compared to the previous version altered.

- Disclaimer

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Safety Data Sheet
acc. to OSHA HCS

Printing date 04/30/2019

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1 Identification

- Product identifier

- **Trade name:** Vibra-TITE® Epoxy
- **Synonyms:** 927 High Performance Epoxy - Part B
- **Part number:** VT927B
- **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



GHS06 Skull and crossbones

Acute Tox. 3 H331 Toxic if inhaled.



GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT SE 1 H370 Causes damage to organs.

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



GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

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



GHS05 GHS06 GHS08 GHS07

- Signal word Danger

- Hazard-determining components of labeling:

Curing agent
Epikure 3072
Curing Agent
Nonylphenol
Curing agent

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/30/2019

Reviewed on 04/30/2019

Trade name: Vibra-TITE® Epoxy

(Contd. of page 1)

- Hazard statements

- H331 Toxic if inhaled.
 H314 Causes severe skin burns and eye damage.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H317 May cause an allergic skin reaction.
 H361 Suspected of damaging fertility or the unborn child.
 H370 Causes damage to organs.
 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.
 P260 Do not breathe dusts or mists.
 P261 Avoid breathing dust/fume/gas/mist/vapors/spray
 P264 Wash face, hands and any exposed skin thoroughly after handling.
 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/protective clothing/eye protection/face protection.
 P280 Wear protective gloves.
 P280 Wear eye protection / face protection.
 P284 [In case of inadequate ventilation] wear respiratory protection.
 P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P304+P341 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a poison center/doctor.
 P307+P311 IF exposed: Call a POISON CENTER or doctor/physician.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P321 Specific treatment (see on this label).
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 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)****- 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:

	Epikure 3072 Resp. Sens. 1, H334; Repr. 2, H361; STOT SE 1, H370; STOT RE 1, H372; Eye Dam. 1, H318; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	29.8%
	Curing agent Skin Sens. 1, H317	19.82%
	Curing Agent Skin Corr. 1B, H314; Skin Sens. 1, H317	19.82%
	Curing agent Acute Tox. 2, H330; Repr. 2, H361; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; STOT SE 3, H335	10 – 19%
CAS: 84852-15-3	Nonylphenol Repr. 2, H361; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302	5 – 9%
CAS: 90-72-2	Aminophenol Skin Corr. 1C, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312	5 – 9%

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/30/2019

Reviewed on 04/30/2019

Trade name: Vibra-TITE® Epoxy

(Contd. of page 2)

4 First-aid measures

- Description of first aid measures

- General information:

Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.

- After inhalation:

Supply fresh air or oxygen; call for 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:

Immediately call a doctor.
Drink copious amounts of water and provide fresh air. Immediately call a 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.
CO₂, sand, extinguishing powder. Do not use water.

- For safety reasons unsuitable extinguishing agents: Water

- Special hazards arising from the substance or mixture

No further relevant information available.

- Advice for firefighters

- Protective equipment:

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:

Use neutralizing agent.
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.
Open and handle receptacle with care.
Prevent formation of aerosols.

- Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/30/2019

Reviewed on 04/30/2019

Trade name: Vibra-TITE® Epoxy

(Contd. of page 3)

- 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 product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **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.
Store protective clothing separately.
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:

Liquid

- Color:

Whitish

- 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:

95 °C (203 °F)

- Flammability (solid, gaseous):

Not applicable.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/30/2019

Reviewed on 04/30/2019

Trade name: Vibra-TITE® Epoxy

(Contd. of page 4)

- Ignition temperature:	260 °C (500 °F)
- 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 20 °C (68 °F):	≤ 13.3 hPa (≤ 10 mm Hg)
- Density at 20 °C (68 °F):	~ 1.01186 g/cm ³ (~ 8.44397 lbs/gal)
- Relative density	Not determined.
- Vapor density	Not determined.
- Evaporation rate	Not determined.
- Solubility in / Miscibility with	
- Water:	Not miscible or difficult to mix.
- Partition coefficient (n-octanol/water):	Not determined.
- Viscosity:	
- Dynamic at 20 °C (68 °F):	15,000 mPas
- Kinematic:	Not determined.
- Solvent content:	
- VOC content:	0.00 % 0.0 g/l / 0.00 lb/gal
- Solids content:	2.4 %
- 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	3,439 mg/kg (rat)
Dermal	LD50	4,412 mg/kg
Inhalative	LC50/4 h	3.81 mg/l

Curing Agent

Oral	LD50	3,160 mg/kg (rat)
Dermal	LD50	2,500 mg/kg (rabbit)

Curing agent

Oral	LD50	1,080 mg/kg (rat)
Dermal	LD50	1,090 mg/kg (rabbit)
Inhalative	LC50/4 h	0.5 mg/l (ATE)

CAS: 84852-15-3 Nonylphenol

Oral	LD50	1,412 mg/kg (rat)
------	------	-------------------

CAS: 90-72-2 Aminophenol

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

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/30/2019

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Trade name: Vibra-TITE® Epoxy

(Contd. of page 5)

- **Primary irritant effect:**
 - **on the skin:** Strong caustic effect on skin and mucous membranes.
 - **on the eye:** Strong caustic effect.
- **Sensitization:**
 - Sensitization possible through inhalation.
 - Sensitization possible through skin contact.
- **Additional toxicological information:**

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

Harmful
Corrosive
Irritant
Very toxic
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Carcinogenic categories**

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

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **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 3 (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Danger to drinking water if even extremely 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.

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** UN3266
- **UN proper shipping name**
 - **DOT** Corrosive liquid, basic, inorganic, n.o.s. (3,3'-(Oxybis(2,1-ethane-diyloxy))bis-1-propanamine, Diethylenetriamine)
 - **IMDG** CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (3,3'-(Oxybis(2,1-ethane-diyloxy))bis-1-propanamine, DIETHYLENTRIAMINE), MARINE POLLUTANT
 - **IATA** CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (3,3'-(Oxybis(2,1-ethane-diyloxy))bis-1-propanamine, DIETHYLENTRIAMINE)

(Contd. on page 7)

Safety Data Sheet





acc. to OSHA HCS

Printing date 04/30/2019

Reviewed on 04/30/2019

Trade name: Vibra-TITE® Epoxy

(Contd. of page 6)

- Transport hazard class(es)	
- DOT	
	
- Class	8 Corrosive substances
- Label	8
<hr/>	
- IMDG	
 	
- Class	8 Corrosive substances
- Label	8
<hr/>	
- IATA	
	
- Class	8 Corrosive substances
- Label	8
<hr/>	
- Packing group	
- DOT, IMDG, IATA	II
<hr/>	
- Environmental hazards:	Product contains environmentally hazardous substances: 4-nonyl-, branched
- Marine pollutant:	Yes Symbol (fish and tree)
<hr/>	
- Special precautions for user	Warning: Corrosive substances
- Danger code (Kemler):	88
- EMS Number:	F-A,S-B
- Segregation groups	Alkalis
- Stowage Category	B
- Stowage Code	SW2 Clear of living quarters.
- Segregation Code	SG35 Stow "separated from" SGG1-acids
<hr/>	
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
<hr/>	
- Transport/Additional information:	
- DOT	
- Quantity limitations	On passenger aircraft/rail: 0.5 L On cargo aircraft only: 2.5 L
<hr/>	
- IMDG	
- Limited quantities (LQ)	0
- Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
<hr/>	
- UN "Model Regulation":	UN 3266 CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (3,3'-(OXYBIS(2,1-ETHANE-DIYLOXY))BIS-1-PROPANAMINE, DIETHYLENTRIAMINE), 8, II, ENVIRONMENTALLY HAZARDOUS

*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):

CAS: 84852-15-3 | Nonylphenol

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/30/2019

Reviewed on 04/30/2019

Trade name: Vibra-TITE® Epoxy

(Contd. of page 7)

- TSCA (Toxic Substances Control Act):	
Epikure 3072	ACTIVE
Curing agent	*
Curing Agent	ACTIVE
Curing agent	ACTIVE
Nonylphenol	ACTIVE
Aminophenol	ACTIVE
Silicon dioxide, amorphous	ACTIVE
Bis (dimethylaminomethyl) phenol	*
- Hazardous Air Pollutants	
None of the ingredients is listed.	
- 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 established by ACGIH)	
None of the ingredients is listed.	
- 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 Affaires

- Contact: Safety, Health and Environmental Affaires

- Date of preparation / last revision 04/30/2019 / 28

- 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

Acute Tox. 2: Acute toxicity – Category 2

Acute Tox. 3: Acute toxicity – Category 3

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

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

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Repr. 2: Reproductive toxicity – Category 2

STOT SE 1: Specific target organ toxicity (single exposure) – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

(Contd. on page 9)

Safety Data Sheet
acc. to OSHA HCS

Printing date 04/30/2019

Reviewed on 04/30/2019

Trade name: Vibra-TITE® Epoxy

(Contd. of page 8)

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

- **Disclaimer**

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