| Product code | Description |
|---|---|
| **VT920** | **Vibra-TITE® Epoxy**<br>**920 High Peel / High Shear 2 Part Epoxy** |

Components:

| | |
|---|---|
| VT920A | Vibra-TITE® Epoxy 920 High Peel / High Shear 2 Part Epoxy - Part A |
| VT920B | Vibra-TITE® Epoxy 920 High Peel / High Shear 2 Part 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:*** 920 High Peel / High Shear 2 Part Epoxy - Part A
    - ***Part number:*** VT920A
    - ***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***


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

    - ***Signal word*** Warning
    - ***Hazard-determining components of labeling:***
      Bisphenol-A epoxy resin
      oxirane,2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer
      UV Dispersion
    - ***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. |
| 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. |

(Contd. on page 2)

# 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)

| | |
|---|---|
| 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)***


Health = 2
Fire = 1
Reactivity = 0

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


Health = 2
Fire = 1
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<br>Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335 | 50 – 59% |
| CAS: 25085-99-8 | oxirane,2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer<br>Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317 | 20 – 29% |
| | UV Dispersion<br>Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317 | ≤ 1% |

## 4 First-aid measures

- ***Description of first aid measures***
  - ***After inhalation:***
    Supply fresh air and to be sure call for a doctor.
    In case of unconsciousness place patient stably in side position for transportation.
    Supply fresh air; consult doctor in case of complaints.
  - ***After skin contact:*** Immediately wash with water and soap and rinse thoroughly.
  - ***After eye contact:*** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - ***After swallowing:*** If symptoms persist consult doctor.
  - ***Information for doctor:***
    - ***Most important symptoms and effects, both acute and delayed*** No further relevant information available.
    - ***Indication of any immediate medical attention and special treatment needed***
      No further relevant information available.

## 5 Fire-fighting measures

- ***Extinguishing media***
  - ***Suitable extinguishing agents:***
    CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
    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.
    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.

(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)

- ***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 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.
    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

(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)

## 9 Physical and chemical properties

- ***Information on basic physical and chemical properties***
  - ***General Information***
    - ***Appearance:***
      - ***Form:*** Fluid
      - ***Color:*** According to product specification
    - ***Odor:*** Characteristic
    - ***Odor threshold:*** Not determined.
  - ***pH-value:*** Not determined.
  - ***Change in condition***
    - ***Melting point/Melting range:*** Undetermined.
    - ***Boiling point/Boiling range:*** ≥ 260 °C (≥ 500 °F)
  - ***Flash point:*** 148 °C (298.4 °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:*** Not determined.
  - ***Density at 20 °C (68 °F):*** ~ 1.15592 g/cm³ (~ 9.64615 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):*** 65,000 mPas
    - ***Kinematic:*** Not determined.
  - ***Solvent content:***
    - ***VOC content:*** 0.00 %
      0.0 g/l / 0.00 lb/gal
    - ***Solids content:*** 0.0 %
- ***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:***
    - ***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:

(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)

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.
- ***Ecotoxical 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.
- ***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 A Epoxy Resin) |
| - ***IMDG*** | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIQUID EPOXY RESIN, Bisphenol A Epoxy Resin), MARINE POLLUTANT |
| - ***IATA*** | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIQUID EPOXY RESIN, Bisphenol A Epoxy Resin) |
| - ***Transport hazard class(es)*** | |
| - ***DOT, IMDG, IATA*** |  |
| - ***Class*** | 9 Miscellaneous dangerous substances and articles |
| - ***Label*** | 9 |
| - ***Packing group*** | |
| - ***DOT, IMDG, IATA*** | III |

(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)

| | |
|---|---|
| - ***Environmental hazards:*** | Product contains environmentally hazardous substances: LIQUID EPOXY RESIN |
| - ***Marine pollutant:*** | Yes<br>Symbol (fish and tree) |
| - ***Special marking (IATA):*** | Symbol (fish and tree) |
| - ***Special precautions for user*** | Warning: Miscellaneous dangerous substances and articles |
| - ***Danger code (Kemler):*** | 90 |
| - ***EMS Number:*** | F-A,S-F |
| - ***Stowage Category*** | 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<br>On cargo aircraft only: No limit |
| - ***Remarks:*** | Special marking with the symbol (fish and tree). |
| - ***IMDG*** | |
| - ***Limited quantities (LQ)*** | 5L |
| - ***Excepted quantities (EQ)*** | Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml |
| - ***UN "Model Regulation":*** | UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIQUID EPOXY RESIN, BISPHENOL A 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.

- ***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.

(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)

## 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)
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
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***

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.

# 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:*** 920 High Peel / High Shear 2 Part Epoxy - Part B
    - ***Part number:*** VT920B
    - ***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

| | | |
|---|---|---|
| Repr. 2 | H361 | Suspected of damaging fertility or the unborn child. |
| STOT RE 2 | H373 | May cause 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

| | | |
|---|---|---|
| Acute Tox. 4 | H302 | Harmful if swallowed. |
| 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:***
      Epoxy curing agent
      Curing Agent
      Aminophenol
      Curing agent
      Bisphenol-A epoxy resin
    - ***Hazard statements***
      H302 Harmful if swallowed.
      H314 Causes severe skin burns and eye damage.
      H317 May cause an allergic skin reaction.
      H361 Suspected of damaging fertility or the unborn child.
      H373 May cause damage to organs through prolonged or repeated exposure.

(Contd. on page 2)

# 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)

- ***Precautionary statements***

| | |
|---|---|
| P201 | Obtain special instructions before use. |
| 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. |
| 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. |
| P301+P312 | If swallowed: Call a poison center/doctor if you feel unwell. |
| P301+P330+P331 | If swallowed: Rinse mouth. Do NOT induce vomiting. |
| 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. |
| P305+P351+P338 | If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a poison center/doctor. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P321 | Specific treatment (see on this label). |
| P314 | Get medical advice/attention if you feel unwell. |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P363 | Wash contaminated clothing before reuse. |
| P405 | Store locked up. |
| 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

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


Health = *3
Fire = 1
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:***

| | | |
|---|---|---|
| | Curing agent<br>Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317 | 20 – 29% |
| | Curing Agent<br>Skin Corr. 1B, H314; Skin Sens. 1, H317 | 20 – 29% |
| | Epoxy curing agent<br>Repr. 2, H361; STOT RE 2, H373; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317 | 20 – 29% |
| CAS: 25068-38-6 | Bisphenol-A epoxy resin<br>Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335 | 10 – 19% |
| CAS: 90-72-2 | Aminophenol<br>Skin Corr. 1C, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312 | 5 – 9% |
| CAS: 71074-89-0 | Bis (dimethylaminomethyl) phenol<br>Skin Corr. 1B, H314; Eye Dam. 1, H318 | 1 – 4% |

## 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.
  - ***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.

(Contd. on page 3)

# Safety Data Sheet
*acc. to OSHA HCS*



(Contd. of page 2)

- ***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.
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 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.

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# 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)

- ***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
    - ***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:*** | Fluid |
| - ***Color:*** | According to product specification |
| - ***Odor:*** | Characteristic |
| - ***Odor threshold:*** | Not determined. |
| - ***pH-value at 20 °C (68 °F):*** | 4 |
| - ***Change in condition*** | |
| - ***Melting point/Melting range:*** | Undetermined. |
| - ***Boiling point/Boiling range:*** | ≥ 150 °C (≥ 302 °F) |
| - ***Flash point:*** | 94 °C (201.2 °F) |
| - ***Flammability (solid, gaseous):*** | Not applicable. |
| - ***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 21 °C (69.8 °F):*** | ≤ 8 hPa (≤ 6 mm Hg) |
| - ***Density at 20 °C (68 °F):*** | ~ 1.0163 g/cm³ (~ 8.48102 lbs/gal) |
| - ***Relative density*** | Not determined. |
| - ***Vapor density*** | Not determined. |
| - ***Evaporation rate*** | Not determined. |

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# 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)

| | |
|---|---|
| - ***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):*** | 3,000 mPas |
| - ***Kinematic:*** | Not determined. |
| - ***Solvent content:*** | |
| - ***VOC content:*** | 0.00 %<br>0.0 g/l / 0.00 lb/gal |
| - ***Solids content:*** | 0.0 % |
| - ***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:***

| **ATE (Acute Toxicity Estimate)** | | |
|---|---|---|
| Oral | LD50 | > 1,466 mg/kg (rat) |
| Dermal | LD50 | > 3,610 mg/kg |
| Inhalative | LC50/4 h | 15,474 mg/l (rat) |

| **Curing Agent** | | |
|---|---|---|
| Oral | LD50 | 3,160 mg/kg (rat) |
| Dermal | LD50 | 2,500 mg/kg (rabbit) |
| **Epoxy curing agent** | | |
| Oral | LD50 | > 500 mg/kg (rat) |
| Dermal | LD50 | > 2,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 4,178 mg/l (rat) |
| **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:*** Strong caustic effect on skin and mucous membranes.
- ***on the eye:*** Strong caustic 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
Corrosive
Irritant
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.

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# Safety Data Sheet
*acc. to OSHA HCS*

*Printing date 04/30/2019* *Reviewed on 04/30/2019*

***Trade name:*** Vibra-TITE® Epoxy

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## 12 Ecological information

- ***Toxicity***
  - ***Aquatic toxicity:*** No further relevant information available.
- ***Persistence and degradability*** No further relevant information available.
- ***Behavior in environmental systems:***
  - ***Bioaccumulative potential*** No further relevant information available.
  - ***Mobility in soil*** No further relevant information available.
- ***Ecotoxical effects:***
  - ***Remark:*** Very 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.
    Must not reach bodies of water or drainage ditch undiluted or unneutralized.
    Danger to drinking water if even small quantities leak into the ground.
    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.

## 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, 2,4,6-tris(dimethylamino-methyl)phenol) |
| - ***IMDG*** | CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (3,3'-(Oxybis(2,1-ethane-diyloxy))bis-1-propanamine, 2,4,6-tris(dimethylaminomethyl)phenol), MARINE POLLUTANT |
| - ***IATA*** | CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (3,3'-(Oxybis(2,1-ethane-diyloxy))bis-1-propanamine, 2,4,6-tris(dimethylaminomethyl)phenol) |
| - ***Transport hazard class(es)*** | |
| - ***DOT*** |  |
| - ***Class*** | 8 Corrosive substances |
| - ***Label*** | 8 |
| - ***IMDG*** |  |
| - ***Class*** | 8 Corrosive substances |
| - ***Label*** | 8 |

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# Safety Data Sheet
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***Trade name:*** Vibra-TITE® Epoxy

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- ***IATA***

| | |
|---|---|
| - ***Class*** | 8 Corrosive substances |
| - ***Label*** | 8 |
| - ***Packing group*** | |
| - ***DOT, IMDG, IATA*** | I |
| - ***Environmental hazards:*** | Product contains environmentally hazardous substances: Nonyl Phenol |
| - ***Marine pollutant:*** | No<br>Yes (DOT)<br>Symbol (fish and tree) |
| - ***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 |
| - ***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: 0.5 L<br>On cargo aircraft only: 2.5 L |
| - ***Remarks:*** | Special marking with the symbol (fish and tree). |
| - ***IMDG*** | |
| - ***Limited quantities (LQ)*** | 0 |
| - ***Excepted quantities (EQ)*** | Code: E0<br>Not permitted as Excepted Quantity |
| - ***UN "Model Regulation":*** | UN 3266 CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (3,3'-(OXYBIS(2,1-ETHANE-DIYLOXY))BIS-1-PROPANAMINE, 2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL), 8, I, 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):***

None of the ingredients is listed.

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

| | |
|---|---|
| Curing agent | ACTIVE |
| Curing Agent | ACTIVE |
| Epoxy curing agent | ACTIVE |
| Bisphenol-A epoxy resin | ACTIVE |
| Aminophenol | 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.

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# Safety Data Sheet
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- ***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 / 20
- ***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. 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
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Skin Sens. 1: Skin sensitisation – Category 1
Repr. 2: Reproductive toxicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

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

- ***Disclaimer***

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