

**Kit Components**

Product code	Description
<b>VT923</b>	<b>Vibra-TITE® Epoxy 923 Aluminum Bonder</b>

## Components:

VT923A	Vibra-TITE® Epoxy
VT923B	Vibra-TITE® Epoxy

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

Printing date 01/23/2024

Reviewed on 02/20/2023

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

- **Trade name:** Vibra-TITE® Epoxy
- **Synonyms:** 923 Aluminum Bonder - Part A - Resin
- **Part number:** VT923A
- **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 Irritation 2	H315 Causes skin irritation.
Eye Irritation 2A	H319 Causes serious eye irritation.
Sensitization - Skin 1	H317 May cause an allergic skin reaction.
Specific Target Organ Toxicity - Single Exposure 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

**- 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 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.

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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.

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

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

### \* 3 Composition/information on ingredients

**- Chemical characterization: Mixtures**

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

**- Dangerous components:**

CAS: 25068-38-6	Bisphenol-A epoxy resin Skin Irritation 2, H315; Eye Irritation 2A, H319; Sensitization - Skin 1, H317; Specific Target Organ Toxicity - Single Exposure 3, H335	60 – 69%
CAS: 9003-36-5	Bisphenol F epoxy resin Skin Irritation 2, H315; Sensitization - Skin 1, H317	30 – 39%

### 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:**

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

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

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

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

### 6 Accidental release measures

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

Ensure adequate ventilation  
Wear protective clothing.

**- Environmental precautions:**

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.

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## 7 Handling and storage

### - Handling:

#### - Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.

- **Information about protection against explosions and fires:** No special measures required.

### - Conditions for safe storage, including any incompatibilities

#### - Storage:

- **Requirements to be met by storerooms and receptacles:** No special requirements.

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:** Keep receptacle tightly sealed.

- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.

### - Control parameters

#### - Components with limit values that require monitoring at the workplace:

The 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

- **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:

&gt; 200 °C (&gt; 392 °F)

#### - Flash point:

95 °C (203 °F)

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- <b>Flammability (solid, gaseous):</b>	Not applicable.
- <b>Decomposition temperature:</b>	Not determined.
- <b>Ignition temperature:</b>	Product is not selfigniting.
- <b>Danger of explosion:</b>	Product does not present an explosion hazard.
- <b>Explosion limits:</b>	
- <b>Lower:</b>	Not determined.
- <b>Upper:</b>	Not determined.
- <b>Vapor pressure:</b>	Not determined.
- <b>Density at 20 °C (68 °F):</b>	~ 1.18193 g/cm <sup>3</sup> (~ 9.86321 lbs/gal)
- <b>Relative density</b>	Not determined.
- <b>Vapor density</b>	Not determined.
- <b>Evaporation rate</b>	Not determined.
- <b>Solubility in / Miscibility with</b>	
- <b>Water:</b>	Not miscible or difficult to mix.
- <b>Partition coefficient (n-octanol/water):</b>	Not determined.
- <b>Viscosity:</b>	
- <b>Dynamic at 20 °C (68 °F):</b>	65,000 mPas
- <b>Kinematic:</b>	Not determined.
- <b>Solvent content:</b>	
- <b>VOC content:</b>	0.00 % 0.0 g/l / 0.00 lb/gal
- <b>Solids content:</b>	1.0 %
- <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

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

## 11 Toxicological information

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

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- **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.
- **Uncleaned packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

- <b>UN-Number</b> - DOT, ADN, IMDG, IATA	not regulated
- <b>UN proper shipping name</b> - DOT, ADN, IMDG, IATA	not regulated
- <b>Transport hazard class(es)</b> - DOT, ADN, IMDG, IATA - Class	not regulated
- <b>Packing group</b> - DOT, IMDG, IATA	not regulated
- <b>Environmental hazards:</b> - Marine pollutant:	Yes
- <b>Special precautions for user</b>	Not applicable.
- <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
- <b>UN "Model Regulation":</b>	not regulated

## \*15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.
- **Sara**

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

None of the ingredients is listed.

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

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.

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<b>- Chemicals known to cause reproductive toxicity for females:</b>
None of the ingredients is listed.
<b>- Chemicals known to cause reproductive toxicity for males:</b>
None of the ingredients is listed.
<b>- Chemicals known to cause developmental toxicity:</b>
None of the ingredients is listed.
<b>- Carcinogenic categories</b>
<b>- EPA (Environmental Protection Agency)</b>
None of the ingredients is listed.
<b>- TLV (Threshold Limit Value)</b>
None of the ingredients is listed.
<b>- NIOSH-Ca (National Institute for Occupational Safety and Health)</b>
None of the ingredients is listed.
<b>- Chemical safety assessment:</b> A Chemical Safety Assessment has not been carried out.

## 16 Other information

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

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

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

**- Classification System:**

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

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

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

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

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

**- Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

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 Irritation 2: Skin corrosion/irritation – Category 2

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

Sensitization - Skin 1: Skin sensitisation – Category 1

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

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

**- Disclaimer**

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Reviewed on 02/02/2023

**1 Identification**

**- Product identifier**

- **Trade name:** Vibra-TITE® Epoxy
- **Synonyms:** 923 Aluminum Bonder - Part B - Hardener
- **Part number:** VT923B
- **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

Toxic to Reproduction 1A H360 May damage fertility or the unborn child.  
Specific Target Organ Toxicity - Single Exposure 1 H370 Causes damage to organs.



GHS05 Corrosion

Skin Corrosion 1B H314 Causes severe skin burns and eye damage.  
Eye Damage 1 H318 Causes serious eye damage.



GHS07

Sensitization - Skin 1 H317 May cause an allergic skin reaction.

**- Label elements**

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

**- Hazard pictograms**



GHS05 GHS07 GHS08

- **Signal word** Danger

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

- Nonylphenol
- Curing agent
- BYK 4511
- bisphenol A
- Fatty Acids, C18-unsatd, dimers, polymers with bisphenol A, epichlorohydrin, tall-oil fatty acids, tetraethylenepentamine and TETA
- 2,2'-iminodiethylamine
- triethylenetetramine
- Reactive stabilizer

**- Hazard statements**

- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H360 May damage fertility or the unborn child.



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H370 Causes damage to organs.

**- Precautionary statements**

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P260	Do not breathe dusts or mists.
P264	Wash 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.
P311	Call a poison center/doctor.
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).
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.

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

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

### 3 Composition/information on ingredients

**- Chemical characterization: Mixtures**- **Description:** Mixture of the substances listed below with nonhazardous additions.**- Dangerous components:**

CAS: 84852-15-3	Nonylphenol Toxic to Reproduction 2, H361; Skin Corrosion 1B, H314; Eye Damage 1, H318; Acute Toxicity - Oral 4, H302	20 – 29%
	Curing agent Skin Corrosion 1B, H314; Eye Damage 1, H318; Sensitization - Skin 1, H317	20 – 29%
CAS: 106906-26-7	Fatty Acids, C18-unsatd, dimers, polymers with bisphenol A, epichlorohydrin, tall-oil fatty acids, tetraethylenepentamine and TETA Eye Damage 1, H318; Skin Irritation 2, H315; Sensitization - Skin 1, H317	10 – 19%
CAS: 111-40-0	2,2'-iminodiethylamine Skin Corrosion 1B, H314; Acute Toxicity - Oral 4, H302; Acute Toxicity - Dermal 4, H312; Sensitization - Skin 1, H317	10 – 19%
CAS: 90-72-2	Aminophenol Skin Corrosion 1C, H314; Eye Damage 1, H318; Acute Toxicity - Oral 4, H302; Acute Toxicity - Dermal 4, H312	5 – 9%
CAS: 80-05-7	bisphenol A Toxic to Reproduction 1B, H360; Eye Damage 1, H318; Sensitization - Skin 1, H317; Specific Target Organ Toxicity - Single Exposure 3, H335	5 – 9%
CAS: 100-51-6	Benzyl alcohol Acute Toxicity - Oral 4, H302; Acute Toxicity - Dermal 4, H312; Acute Toxicity - Inhalation 4, H332; Eye Irritation 2A, H319	5 – 9%
	BYK 4511 Flammable Liquids 3, H226; Toxic to Reproduction 1A, H360; Specific Target Organ Toxicity - Single Exposure 1, H370; Aspiration Hazard 1, H304; Skin Irritation 2, H315; Eye Irritation 2A, H319	1 – 4%
CAS: 71074-89-0	Bis (dimethylaminomethyl) phenol Skin Corrosion 1B, H314; Eye Damage 1, H318	1 – 4%
CAS: 112-24-3	triethylenetetramine Skin Corrosion 1B, H314; Acute Toxicity - Dermal 4, H312; Sensitization - Skin 1, H317	≤ 1%
CAS: 112-57-2	Reactive stabilizer Skin Corrosion 1B, H314; Acute Toxicity - Dermal 4, H312; Sensitization - Skin 1, H317	≤ 1%

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Trade name: Vibra-TITE® Epoxy

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## 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.

#### - 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:

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

### - Special hazards arising from the substance or mixture

No further relevant information available.

### - Advice for firefighters

#### - Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

## 6 Accidental release measures

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

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 section 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.

## 7 Handling and storage

### - Handling:

#### - Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

#### - Information about protection against explosions and fires: No special measures required.

### - Conditions for safe storage, including any incompatibilities

#### - Storage:

- **Requirements to be met by storerooms and receptacles:** No special requirements.

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:** Keep receptacle tightly sealed.

#### - Specific end use(s) No further relevant information available.

## 8 Exposure controls/personal protection

### - Additional information about design of technical systems: No further data; see section 7.

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**- Control parameters****- Components with limit values that require monitoring at the workplace:**

At this time, the other constituents have no known exposure limits.

<b>CAS: 111-40-0 2,2'-iminodiethylamine</b>	
REL	Long-term value: 4 mg/m <sup>3</sup> , 1 ppm Skin
TLV	Long-term value: 1 ppm Skin
<b>CAS: 100-51-6 Benzyl alcohol</b>	
WEEL	Long-term value: 10 ppm
<b>CAS: 112-24-3 triethylenetetramine</b>	
WEEL	Long-term value: 6 mg/m <sup>3</sup> , 1 ppm Skin
<b>CAS: 112-57-2 Reactive stabilizer</b>	
WEEL	Long-term value: 5 mg/m <sup>3</sup> Skin; 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

**- 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:**

Light yellow

**- Odor:**

Amine-like

**- Odor threshold:**

Not determined.

**- pH-value:**

Not determined.

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

Undetermined.

**- Boiling point/Boiling range:**

≥ 150 °C (≥ 302 °F)

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Reviewed on 02/02/2023

Trade name: Vibra-TITE® Epoxy

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- <b>Flash point:</b>	97 °C (206.6 °F)
- <b>Flammability (solid, gaseous):</b>	Not applicable.
- <b>Decomposition temperature:</b>	Not determined.
- <b>Ignition temperature:</b>	Product is not selfigniting.
- <b>Danger of explosion:</b>	Product does not present an explosion hazard.
- <b>Explosion limits:</b>	
- <b>Lower:</b>	Not determined.
- <b>Upper:</b>	Not determined.
- <b>Vapor pressure at 20 °C (68 °F):</b>	≤ 0.5 hPa (≤ 0.4 mm Hg)
- <b>Density at 20 °C (68 °F):</b>	~ 1.04137 g/cm <sup>3</sup> (~ 8.69023 lbs/gal)
- <b>Relative density</b>	Not determined.
- <b>Vapor density</b>	Not determined.
- <b>Evaporation rate</b>	Not determined.
- <b>Solubility in / Miscibility with</b>	
- <b>Water:</b>	Not miscible or difficult to mix.
- <b>Partition coefficient (n-octanol/water):</b>	Not determined.
- <b>Viscosity:</b>	
- <b>Dynamic:</b>	Not determined.
- <b>Kinematic:</b>	Not determined.
- <b>Solvent content:</b>	
- <b>Organic solvents:</b>	5.4 %
- <b>VOC content:</b>	5.40 % ~ 56.2 g/l / ~ 0.47 lb/gal
- <b>Solids content:</b>	9.0 %
- <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

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

## 11 Toxicological information

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

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

#### ATE (Acute Toxicity Estimate)

Oral	LD50	2,398 mg/kg (rat)
Dermal	LD50	5,568 mg/kg
Inhalative	LC50/4 h	204 mg/l

#### CAS: 84852-15-3 Nonylphenol

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

#### Curing agent

Oral	LD50	4,310 mg/kg (rat)
Dermal	LD50	2,510 mg/kg (rabbit)

#### CAS: 111-40-0 2,2'-iminodiethylamine

Oral	LD50	1,080 mg/kg (rat)
Dermal	LD50	1,090 mg/kg (rabbit)

#### CAS: 90-72-2 Aminophenol

Oral	LD50	1,200 mg/kg (rat)
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Dermal	LD50	2,000 mg/kg (rat)
<b>CAS: 80-05-7 bisphenol A</b>		
Oral	LD50	3,250 mg/kg (rat)
Dermal	LD50	3,000 mg/kg (rabbit)
<b>CAS: 100-51-6 Benzyl alcohol</b>		
Oral	LD50	1,230 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/l (ATE)
<b>CAS: 112-24-3 triethylenetetramine</b>		
Oral	LD50	2,500 mg/kg (rat)
Dermal	LD50	805 mg/kg (rabbit)
<b>CAS: 112-57-2 Reactive stabilizer</b>		
Oral	LD50	2,140 mg/kg (rat)
Dermal	LD50	> 660 mg/kg (rabbit)

**- 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.

## 12 Ecological information

**- Toxicity****- Aquatic toxicity:** No further relevant information available.**- Persistence and degradability** No further relevant information available.**- Behavior in environmental systems:****- Bioaccumulative potential** No further relevant information available.**- Mobility in soil** No further relevant information available.**- Ecotoxicological effects:****- Remark:** Very toxic for fish**- Additional ecological information:****- General notes:**

Water hazard class 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.  
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.

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Trade name: Vibra-TITE® Epoxy

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## 14 Transport information

<b>- UN-Number</b> <b>- DOT, IMDG, IATA</b>	UN1760
<b>- UN proper shipping name</b> <b>- DOT</b>  <b>- IMDG</b>  <b>- IATA</b>	Corrosive liquids, n.o.s. (Diethylenetriamine, 4-Nonylphenol, branched) CORROSIVE LIQUID, N.O.S. (DIETHYLENETRIAMINE, 4-Nonylphenol, branched), MARINE POLLUTANT CORROSIVE LIQUID, N.O.S. (DIETHYLENETRIAMINE, 4-Nonylphenol, branched)
<b>- Transport hazard class(es)</b> <b>- DOT</b>    <b>- Class</b> <b>- Label</b>	8 Corrosive substances 8
<b>- IMDG</b>    <b>- Class</b> <b>- Label</b>	8 Corrosive substances 8
<b>- IATA</b>    <b>- Class</b> <b>- Label</b>	8 Corrosive substances 8
<b>- Packing group</b> <b>- DOT, IMDG, IATA</b>	II
<b>- Environmental hazards:</b>  <b>- Marine pollutant:</b>	Product contains environmentally hazardous substances: 4-Nonylphenol, branched Yes Symbol (fish and tree)
<b>- Special precautions for user</b> <b>- Hazard identification number (Kemler code):</b> <b>- EMS Number:</b> <b>- Stowage Category</b> <b>- Stowage Code</b>	Warning: Corrosive substances 88 F-A,S-B B SW2 Clear of living quarters.
<b>- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
<b>- Transport/Additional information:</b>  <b>- DOT</b> <b>- Quantity limitations</b>	On passenger aircraft/rail: 1 L On cargo aircraft only: 30 L
<b>- IMDG</b> <b>- Limited quantities (LQ)</b> <b>- Excepted quantities (EQ)</b>	0 Code: E0 Not permitted as Excepted Quantity
<b>- UN "Model Regulation":</b>	UN 1760 CORROSIVE LIQUID, N.O.S. (DIETHYLENETRIAMINE, 4-NONYLPHENOL, BRANCHED), 8, II, ENVIRONMENTALLY HAZARDOUS

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## 15 Regulatory information

**- Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.

**- Sara**

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

None of the ingredients is listed.

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

CAS: 84852-15-3 Nonylphenol

CAS: 80-05-7 bisphenol A

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

Nonylphenol	ACTIVE
Curing agent	*
Fatty Acids, C18-unsatd, dimers, polymers with bisphenol A, epichlorohydrin, tall-oil fatty acids, tetraethylenepentamine and TETA	ACTIVE
2,2'-iminodiethylamine	ACTIVE
Aminophenol	ACTIVE
bisphenol A	ACTIVE
Benzyl alcohol	ACTIVE
Bis (dimethylaminomethyl) phenol	*
Silicon dioxide, amorphous	ACTIVE
triethylenetetramine	ACTIVE
Reactive stabilizer	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:**

CAS: 80-05-7 bisphenol A

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

None of the ingredients is listed.

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

CAS: 80-05-7 bisphenol A

**- Carcinogenic categories**

**- EPA (Environmental Protection Agency)**

None of the ingredients is listed.

**- TLV (Threshold Limit Value)**

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

**- Classification System:**

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

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

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

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

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**Trade name:** Vibra-TITE® Epoxy

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**- Date of preparation / last revision** 01/23/2024**- Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 DOT: US Department of Transportation  
 IATA: International Air Transport Association  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 VOC: Volatile Organic Compounds (USA, EU)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 NIOSH: National Institute for Occupational Safety  
 OSHA: Occupational Safety & Health  
 TLV: Threshold Limit Value  
 PEL: Permissible Exposure Limit  
 REL: Recommended Exposure Limit  
 Flammable Liquids 3: Flammable liquids – Category 3  
 Acute Toxicity - Oral 4: Acute toxicity – Category 4  
 Skin Corrosion 1B: Skin corrosion/irritation – Category 1B  
 Skin Corrosion 1C: Skin corrosion/irritation – Category 1C  
 Skin Irritation 2: Skin corrosion/irritation – Category 2  
 Eye Damage 1: Serious eye damage/eye irritation – Category 1  
 Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A  
 Sensitization - Skin 1: Skin sensitisation – Category 1  
 Toxic to Reproduction 1A: Reproductive toxicity – Category 1A  
 Toxic to Reproduction 1B: Reproductive toxicity – Category 1B  
 Toxic to Reproduction 2: Reproductive toxicity – Category 2  
 Specific Target Organ Toxicity - Single Exposure 1: Specific target organ toxicity (single exposure) – Category 1  
 Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3  
 Aspiration Hazard 1: Aspiration hazard – Category 1

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

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