

Kit Components

Product code	Description
VT912	Vibra-TITE® Epoxy 912 Oil Field Thread Sealing Epoxy

Components:

VT912A-OBSOLETE	Vibra-TITE® Epoxy
VT912B-OBSOLETE	Vibra-TITE® Epoxy

Safety Data Sheet
according to HPR, Schedule 1

Printing date 01/29/2024

Reviewed on 01/23/2024

1 Identification

- Product identifier

- **Trade name:** Vibra-TITE® Epoxy
- **Synonyms:** 912 Oil Field Thread Sealing Epoxy - Part A
- **Part number:** VT912A-OBSOLETE
- **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 identification**

- Classification of the substance or mixture



GHS08 Health hazard

Carcinogenicity - Category 1A

H350 May cause cancer.

Specific Target Organ Toxicity - Repeated Exposure - Category 1 H372 Causes damage to organs through prolonged or repeated exposure.



GHS07

Skin Irritation - Category 2

H315 Causes skin irritation.

Eye Irritation - Category 2A

H319 Causes serious eye irritation.

Skin Sensitizer - Category 1

H317 May cause an allergic skin reaction.

Specific Target Organ Toxicity - Single Exposure - Category 3

H335 May cause respiratory irritation.

- Label elements

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

- Hazard pictograms



GHS07 GHS08

- **Signal word** Danger

- Hazard-determining components of labeling:

Bisphenol-A epoxy resin
Soapstone
Epoxy resin
Crystalline Silica
d-limonene

- Hazard statements

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H350 May cause cancer.
H335 May cause respiratory irritation.
H372 Causes damage to organs through prolonged or repeated exposure.

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- 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/vapours/spray.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P280	Wear protective gloves.
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.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a poison center/doctor if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P362+P364	Take off contaminated clothing and wash it before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P321	Specific treatment (see on this label).
P337+P313	If eye irritation persists: Get medical advice/attention.
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.

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 - Category 2, H315; Eye Irritation - Category 2A, H319; Skin Sensitizer - Category 1, H317; Specific Target Organ Toxicity - Single Exposure - Category 3, H335	10 – 30% w/w
CAS: 28064-14-4	Epoxy resin Skin Irritation - Category 2, H315; Eye Irritation - Category 2A, H319; Skin Sensitizer - Category 1, H317; Specific Target Organ Toxicity - Single Exposure - Category 3, H335	7 – 13% w/w
CAS: 14807-96-6	Soapstone Carcinogenicity - Category 1A, H350; Specific Target Organ Toxicity - Repeated Exposure - Category 1, H372	5 – 10% w/w
CAS: 5989-27-5	d-limonene Flammable Liquids - Category 3, H226; Aspiration Hazard - Category 1, H304; Skin Irritation - Category 2, H315; Skin Sensitizer - Category 1B, H317	3 – 7% w/w
CAS: 14808-60-7	Crystalline Silica Carcinogenicity - Category 1A, H350; Specific Target Organ Toxicity - Repeated Exposure - Category 1, H372	1 – 5% w/w
CAS: 30499-70-8	Trimethylolpropane triglycidyl ether Skin Corrosion - Category 1C, H314; Serious Eye Damage - Category 1, H318	0.5 – 1.5% w/w

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.

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

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Trade name: Vibra-TITE® Epoxy

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- 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.

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:

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

CAS: 14808-60-7 Crystalline Silica

EL (Canada)	TWA: 0.025 mg/m ³ ACGIH A2; IARC 1
EV (Canada)	TWA: 0.10* mg/m ³ *respirable fraction
PEL (USA)	TWA: 0.05* mg/m ³ *resp. dust; 30mg/m ³ /%SiO ₂ +2
REL (USA)	TWA: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A
TLV (USA)	TWA: 0.025* mg/m ³ *respirable particulate matter, A2

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

- Exposure controls

- Personal protective equipment:

- General protective and hygienic measures:

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

- Breathing equipment:

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

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Trade name: Vibra-TITE® Epoxy

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- Protection of hands:

Protective gloves

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

- Material of gloves

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

Nitrile rubber, NBR

- Penetration time of glove material

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

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

- Body protection: Protective work clothing

9 Physical and chemical properties

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

Viscous

- Color:

Grey

- Odor:

Fruit-like

- Odor threshold:

Not determined.

- pH-value:

Not determined.

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

Undetermined.

- Boiling point/Boiling range:

≥ 173 °C

- Flash point:

98 °C

- Flammability (solid, gaseous):

Not applicable.

- Decomposition temperature:

Not determined.

- Ignition temperature:

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:

n.a. hPa

- Density:

Not determined.

- Relative density

Not determined.

- Vapor density

Not determined.

- Evaporation rate

Not determined.

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

Not miscible or difficult to mix.

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

- Viscosity:**- Dynamic at 20 °C:**

115,000 mPas

- Kinematic:

Not determined.

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

7.0 %

- VOC content:

7.00 %

70.0 g/l / 0.58 lb/gal

- Solids content:

42.2 %

- Other information

No further relevant information available.

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Trade name: Vibra-TITE® Epoxy

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10 Stability and reactivity

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

*11 Toxicological information

- Information on toxicological effects

- Acute toxicity:

- LD/LC50 values that are relevant for classification:

CAS: 5989-27-5 d-limonene

Oral LD50 4,400 mg/kg (rat)

- 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)

CAS: 14807-96-6	Soapstone	3
CAS: 5989-27-5	d-limonene	3
CAS: 14808-60-7	Crystalline Silica	1

- NTP (National Toxicology Program)

CAS: 14808-60-7	Crystalline Silica	K
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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.

- Ecotoxicological 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.
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.

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*14 Transport information

- UN-Number - DOT/TDG, ADR, IMDG, IATA	UN3082
- UN proper shipping name - DOT/TDG	Environmentally hazardous substance, liquid, n.o.s. (Dipentene, bisphenol-A-(epichlorhydrin); epoxy resin)
- ADR	UN3082 Environmentally hazardous substance, liquid, n.o.s. (Dipentene, bisphenol-A-(epichlorhydrin); epoxy resin)
- IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIPENTENE, bisphenol-A-(epichlorhydrin); epoxy resin), MARINE POLLUTANT
- IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIPENTENE, bisphenol-A-(epichlorhydrin); epoxy resin)
- Transport hazard class(es) - DOT/TDG, ADR, IMDG, IATA	
 	
- Class - Label	9 Miscellaneous dangerous substances and articles 9
- Packing group - DOT/TDG, ADR, IMDG, IATA	III
- Environmental hazards:	Product contains environmentally hazardous substances: d-limonene
- Marine pollutant:	Yes
- Special marking (ADR):	Symbol (fish and tree)
- Special marking (IATA):	Symbol (fish and tree)
- Special precautions for user - Hazard identification number (Kemler code): - 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/TDG - Quantity limitations	On passenger aircraft/rail: 450 L On cargo aircraft only: 450 L
- Remarks:	Special marking with the symbol (fish and tree).
- ADR - Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
- 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. (DIPENTENE, BISPHENOL-A-(EPICHLORHYDRIN); EPOXY RESIN), 9, III

*15 Regulatory information

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

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- 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.

- Canadian substance listings:**- Canadian Domestic Substances List (DSL)**

CAS: 25068-38-6	Bisphenol-A epoxy resin
CAS: 28064-14-4	Epoxy resin
CAS: 14807-96-6	Soapstone
CAS: 5989-27-5	d-limonene
CAS: 14808-60-7	Crystalline Silica
CAS: 67762-90-7	Amorphous Silica
CAS: 30499-70-8	Trimethylolpropane triglycidyl ether

- Canadian Non-Domestic Substances List (NDSL)

None of the ingredients is listed.

- Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

- Canadian Ingredient Disclosure list (limit 1%)

CAS: 5989-27-5	d-limonene
CAS: 14808-60-7	Crystalline Silica

- 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	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 the latest revision of the safety data sheet 01/29/2024**- Abbreviations and acronyms:**

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

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

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Safety Data Sheet
according to HPR, Schedule 1

Printing date 01/29/2024

Reviewed on 01/23/2024

1 Identification

- Product identifier

- **Trade name:** Vibra-TITE® Epoxy
- **Synonyms:** 912 Oil Field Thread Sealing Epoxy - Part B
- **Part number:** VT912B-OBSOLETE
- **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 identification**

- Classification of the substance or mixture



GHS05 Corrosion

Serious Eye Damage - Category 1 H318 Causes serious eye damage.



GHS07

Skin Irritation - Category 2 H315 Causes skin irritation.
Skin Sensitizer - Category 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

- **Signal word** Danger
- **Hazard-determining components of labeling:** triethylenetetramine
- **Hazard statements**

H315 Causes skin irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.

- Precautionary statements

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash thoroughly after handling.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P280 Wear protective gloves.
- P302+P352 If on skin: Wash with plenty of water.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a poison center/doctor.
- P321 Specific treatment (see on this label).
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P332+P313 If skin irritation occurs: Get medical advice/attention.

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Trade name: Vibra-TITE® Epoxy

P333+P313
P501If skin irritation or rash occurs: Get medical advice/attention.
Dispose of contents/container in accordance with local/regional/national/international regulations.

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3 Composition/Information on ingredients

- CAS No. Description

Epoxy Curing Agent

- Chemical characterization: Mixtures

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

- Dangerous components:

CAS: 26950-63-0	Triethylenetetramine, propoxylated Eye Irritation - Category 2A, H319	80 – 100% w/w
CAS: 112-24-3	triethylenetetramine Skin Corrosion - Category 1B, H314; Acute Toxicity (Dermal) – Category 4, H312; Skin Sensitizer - Category 1, H317	1 – 5% w/w

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: 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: 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.

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according to HPR, Schedule 1

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Trade name: Vibra-TITE® Epoxy

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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:**

CAS: 112-24-3 triethylenetetramine

EV (Canada)	TWA: 3 mg/m ³ , 0.5 ppm Skin
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WEEL (USA)	TWA: 6 mg/m ³ , 1 ppm Skin
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- **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.
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:	Fluid
- Color:	Amber colored

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

- Melting point/Melting range:	Undetermined.
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- Boiling point/Boiling range:	≥ 266.5 °C
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- Flash point:	175 °C
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- Flammability (solid, gaseous):	Not applicable.
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- Decomposition temperature:	Not determined.
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- Ignition temperature:	Product is not selfigniting.
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- Danger of explosion:	Product does not present an explosion hazard.
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- **Explosion limits:**

- Lower:	Not determined.
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- Upper:	Not determined.
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Trade name: Vibra-TITE® Epoxy

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- Vapor pressure:	Not determined.
- Density at 20 °C:	~ 1.02 g/cm ³
- Relative density	Not determined.
- Vapor density	Not determined.
- Evaporation rate	Not determined.
- Solubility in / Miscibility with	
- Water:	Not miscible or difficult to mix.
- Partition coefficient (n-octanol/water):	Not determined.
- Viscosity:	
- Dynamic:	Not determined.
- Kinematic:	Not determined.
- Solvent content:	
- VOC content:	0.00 % 0.0 g/l / 0.00 lb/gal
- Solids content:	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)

Dermal	LD50	20,125 mg/kg (rabbit)
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CAS: 112-24-3 triethylenetetramine

Oral	LD50	2,500 mg/kg (rat)
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Dermal	LD50	805 mg/kg (rabbit)
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- Primary irritant effect:

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

- **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.

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.

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- Additional ecological information:**- General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- Results of PBT and vPvB assessment**- PBT:** Not applicable.**- vPvB:** Not applicable.**- Other adverse effects** No further relevant information available.**13 Disposal considerations****- Waste treatment methods****- Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.**- Uncleaned packagings:****- Recommendation:** Disposal must be made according to official regulations.**14 Transport information****- UN-Number****- DOT/TDG, ADR, ADN, IMDG, IATA** not regulated**- UN proper shipping name****- DOT/TDG, ADR, ADN, IMDG, IATA** not regulated**- Transport hazard class(es)****- DOT/TDG, ADR, ADN, IMDG, IATA**
- Class not regulated**- Packing group****- DOT/TDG, ADR, IMDG, IATA** not regulated**- Environmental hazards:****- Marine pollutant:** No**- Special precautions for user**

Not applicable.

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

- UN "Model Regulation":

not regulated

15 Regulatory information*- Safety, health and environmental regulations/legislation specific for the substance or mixture**

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.

- Canadian substance listings:**- Canadian Domestic Substances List (DSL)**

All ingredients are listed.

- Canadian Non-Domestic Substances List (NDSL)

None of the ingredients is listed.

- Canadian Ingredient Disclosure list (limit 0.1%)

CAS: 112-24-3 | triethylenetetramine

- Canadian Ingredient Disclosure list (limit 1%)

None of the ingredients is listed.

- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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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

- **Date of the latest revision of the safety data sheet** 01/29/2024

- **Abbreviations and acronyms:**

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

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

- **Disclaimer**

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