

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

Printing date 01/23/2024

Reviewed on 01/23/2024

**1 Identification**

**- Product identifier**

- **Trade name:** Vibra-TITE® Epoxy
- **Synonyms:** 934 Induction Cure - Silver
- **Part number:** VT934
- **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  
Polyglycol diglycidyl ether  
calcium oxide  
oxirane,2,2'-[[1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer

**- 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.

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P312	Call a poison center/doctor if you feel unwell.
P362+P364	Take off contaminated clothing and wash it before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P321	Specific treatment (see on this label).
P337+P313	If eye irritation persists: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

**- 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	40 – 49%
	Polyglycol diglycidyl ether Skin Irritation 2, H315; Eye Irritation 2A, H319; Sensitization - Skin 1B, H317	5 – 9%
CAS: 25085-99-8	oxirane,2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer Skin Irritation 2, H315; Eye Irritation 2A, H319; Sensitization - Skin 1, H317	5 – 9%
CAS: 471-34-1	calcium carbonate	5 – 9%
CAS: 461-58-5	Curing agent Combustible Dust	1 – 4%
CAS: 1305-78-8	calcium oxide Eye Damage 1, H318; Skin Irritation 2, H315; Specific Target Organ Toxicity - Single Exposure 3, H335-H336	1 – 4%

### 4 First-aid measures

**- Description of first aid measures****- After inhalation:**

Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.  
Supply fresh air; consult doctor in case of complaints.

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:** If symptoms persist consult doctor.

**- Information for doctor:**

- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

- **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### \* 5 Fire-fighting measures

**- Extinguishing media**

- **Suitable extinguishing agents:** 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.

**- Methods and material for containment and cleaning up:**

Ensure adequate ventilation.

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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: 471-34-1 calcium carbonate**

PEL	Long-term value: 15* 5** mg/m <sup>3</sup> *total dust **respirable fraction
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REL	Long-term value: 10* 5** mg/m <sup>3</sup> *total dust **respirable fraction
-----	---

TLV	TLV withdrawn
-----	---------------

**CAS: 1305-78-8 calcium oxide**

PEL	Long-term value: 5 mg/m <sup>3</sup>
-----	--------------------------------------

REL	Long-term value: 2 mg/m <sup>3</sup>
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TLV	Long-term value: 2 mg/m <sup>3</sup>
-----	--------------------------------------

**- 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.

**- Eye protection:** Required use of safety glasses**- Body protection:** Protective work clothing

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## \* 9 Physical and chemical properties

<b>- Information on basic physical and chemical properties</b>	
<b>- General Information</b>	
<b>- Appearance:</b>	
<b>- Form:</b>	Pasty
<b>- Color:</b>	Silver grey
<b>- Odor:</b>	Characteristic
<b>- Odor threshold:</b>	Not determined.
<b>- pH-value:</b>	Not determined.
<b>- Change in condition</b>	
<b>- Melting point/Melting range:</b>	Undetermined.
<b>- Boiling point/Boiling range:</b>	≥ 260 °C (≥ 500 °F)
<b>- Flash point:</b>	101 °C (213.8 °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:</b>	Not determined.
<b>- Density:</b>	Not determined.
<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>	900,000 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>	33.9 %
<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:**

<b>- LD/LC50 values that are relevant for classification:</b>	
<b>CAS: 471-34-1 calcium carbonate</b>	
Oral	LD50 6,450 mg/kg (rat)

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

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- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant

- **Carcinogenic categories**

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

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.



## 12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
  - **Bioaccumulative potential** No further relevant information available.
  - **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
  - **Remark:** Toxic for fish
- **Additional ecological information:**
  - **General notes:**  
Water hazard class 2 (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **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. (bisphenol-A-(epichlorhydrin); epoxy resin, Bisphenol A Epoxy Resin)
    - **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol-A-(epichlorhydrin); epoxy resin, Bisphenol A Epoxy Resin), MARINE POLLUTANT
    - **IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol-A-(epichlorhydrin); epoxy resin, Bisphenol A Epoxy Resin)
  - **Transport hazard class(es)**
    - **DOT, IMDG, IATA**
- 


- **Class** 9 Miscellaneous dangerous substances and articles

- **Label** 9

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- <b>Packing group</b> - DOT, IMDG, IATA	III
- <b>Environmental hazards:</b>	Product contains environmentally hazardous substances: bisphenol-A-(epichlorhydrin); epoxy resin
- <b>Marine pollutant:</b>	Yes Symbol (fish and tree)
- <b>Special marking (IATA):</b>	Symbol (fish and tree)
- <b>Special precautions for user</b>	Warning: Miscellaneous dangerous substances and articles
- <b>Hazard identification number (Kemler code):</b>	90
- <b>EMS Number:</b>	F-A,S-F
- <b>Stowage Category</b>	A
- <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: No limit On cargo aircraft only: No limit
- <b>Remarks:</b>	Special marking with the symbol (fish and tree).
- <b>IMDG</b>	
- <b>Limited quantities (LQ)</b>	5L
- <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
- <b>UN "Model Regulation":</b>	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BISPHENOL-A-(EPICHLORHYDRIN); EPOXY RESIN, BISPHENOL A EPOXY RESIN), 9, III

## 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):

Bisphenol-A epoxy resin	ACTIVE
oxirane,2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer	ACTIVE
calcium carbonate	ACTIVE
2-propenoic acid, polymer with 1,3-butadiene and 2-propenenitrile, 3-carboxy-1-cyano-1-methylpropyl-terminated	ACTIVE
Curing agent	ACTIVE
calcium oxide	ACTIVE
Mica	ACTIVE
Aluminum Flake	ACTIVE
Accelerator	ACTIVE
stearic acid	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.

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**- 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)**

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	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)  
 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  
 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  
 Sensitization - Skin 1B: Skin sensitisation – Category 1B  
 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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