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# Safety Data Sheet acc. to OSHA HCS

Printing date 05/03/2022 Reviewed on 04/04/2022

# 1 Identification

#### - Product identifier

- Trade name: Vibra-TITE® Retaining Compound

- Synonyms: 541 High Strength - Slip Fit Retaining Compound

- Part number: VT541

- Application of the substance / the mixture

Assembly adhesive Retaining agents

# - 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

Carc. 2 H351 Suspected of causing cancer.



**GHS05 Corrosion** 

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

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:

(1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate acrylic acid

methacrylic acid, monoester with propane-1,2-diol

7,7,9(or7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate 2'-phenylacetohydrazide

#### - Hazard statements

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

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<ul> <li>Precautionary statements</li> </ul>	-	Precaution	arv s	tatei	ments
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P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

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. 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.

P308+P313 IF exposed or concerned: Get medical advice/attention.
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.
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: 24448-20-2	(1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate	30 – 39%
	Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1B, H317	
CAS: 27813-02-1	methacrylic acid, monoester with propane-1,2-diol	20 – 29%
	Eye Irrit. 2A, H319; Skin Sens. 1, H317	
	Polyester Resin	10 – 19%
	Combustible Dust	
CAS: 7779-31-9	Methacrylate onomer	10 – 19%
	Skin Irrit. 2, H315; Eye Irrit. 2A, H319	
CAS: 72869-86-4	7,7,9(or7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahexadecane-1,16-diyl bismethacrylate	5 – 9%
	Skin Sens. 1, H317; Flam. Liq. 4, H227	
CAS: 79-10-7	acrylic acid	4.90%
	Flam. Liq. 3, H226; Skin Corr. 1A, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	
CAS: 80-15-9	dimethylbenzyl hydroperoxide	≤ 1%
	Self-react. F, H242; Org. Perox. E, H242; Acute Tox. 3, H331; STOT RE 2, H373; Asp. Tox. 1, H304; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; STOT SE 3, H335; Flam. Liq. 4, H227	
CAS: 79-41-4	Methacrylic acid	≤ 1%
	Acute Tox. 3, H311; Skin Corr. 1A, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H332; STOT SE 3, H335; Flam. Liq. 4, H227	
CAS: 114-83-0	2'-phenylacetohydrazide	≤ 1%
	Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	
CAS: 98-82-8	cumene	≤ 1%
	Flam. Lig. 3, H226; Carc. 2, H351; Asp. Tox. 1, H304; Acute Tox. 4, H302; STOT SE 3, H335	

# 4 First-aid measures

# - Description of first aid measures

- General information: Immediately remove any clothing soiled by the product.
- 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: Drink copious amounts of water and provide fresh air. Immediately call a doctor.

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- 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.
- 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: 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.

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:

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

CAS:	79-10-7 acrylic acid		
REL	Long-term value: 6 mg/m³, 2 ppm Skin		
TLV	Long-term value: 2 ppm Skin, A4		
CAS:	30-15-9 dimethylbenzyl hydroperoxide		
WEEL	WEEL Long-term value: 6 mg/m³, 1 ppm Skin		
CAS:	CAS: 79-41-4 Methacrylic acid		
REL	Long-term value: 70 mg/m³, 20 ppm Skin		
TLV	Long-term value: 20 ppm		

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CAS: 9	CAS: 98-82-8 cumene		
PEL	Long-term value: 245 mg/m³, 50 ppm Skin		
REL	Long-term value: 245 mg/m³, 50 ppm Skin		
TLV	Long-term value: 5 ppm A3		

<sup>-</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:

Not required.

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:



Tightly sealed goggles

- Body protection: Protective work clothing

# 9 Physical and chemical properties

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- Information on basic physical and che - General Information	mical properties
- Appearance:	
- Form:	Fluid
- Color:	Green
- Odor:	Weak, characteristic
- Odor threshold:	Not determined.
- pH-value:	Not determined.
<ul> <li>Change in condition</li> <li>Melting point/Melting range:</li> <li>Boiling point/Boiling range:</li> </ul>	Undetermined. ≥ 170 °C (≥ 338 °F)
- Flash point:	95 °C (203 °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.
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- Vapor pressure at 20 °C (68 °F):	≤ 0.1 hPa
- Density at 20 °C (68 °F):	~ 1.1 g/cm³ (~ 9.1795 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/wat	ter): Not determined.
- Viscosity:	
- Dynamic at 20 °C (68 °F):	1,500 mPas
- Kinematic:	Not determined.
- Solvent content:	
<ul><li>Organic solvents:</li></ul>	0.7 %
- Water:	1.0 %
- VOC content:	0.70 %
	~ 7.7 g/l / ~ 0.06 lb/gal
- Solids content:	19.7 %
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:

ATE (Acut	e Toxicity	r Estimate)
•		5,102 mg/kg (rat)
•	LD50	5,236 mg/kg (rabbit)
Inhalative		
CAS: 79-1		
	LD50	250 mg/kg (rat)
Dermal	LD50	280 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/l (ATE)
		hylbenzyl hydroperoxide
Oral	LD50	382 mg/kg (rat)
Dermal	LD50	500 mg/kg (rat)
Inhalative	LC50/4 h	220 mg/l (rat)
CAS: 79-4	1-4 Metha	crylic acid
Oral	LD50	1,332 mg/kg (mouse)
Dermal	LD50	500 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/l (ATE)
CAS: 114-	83-0 2'-ph	enylacetohydrazide
Oral	LD50	270 mg/kg (mouse)
CAS: 98-8	2-8 cume	
Oral	LD50	1,400 mg/kg (rat)
Dermal	LD50	12,300 mg/kg (rabbit)
Inhalative	LC50/4 h	24.7 mg/l (mouse)

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#### - Primary irritant effect:

- on the skin: 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:

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

• • • • • • • • • • • • • • • • • • • •	egeme categories	
- IAF	C (International Agency for Research on Cancer)	
CAS: 79-10-7	acrylic acid	3
CAS: 98-82-8	cumene	2B
CAS: 91-20-3	naphthalene	2B
CAS: 1330-20-7	Mixed Xylenes	3
CAS: 100-41-4	ethylbenzene	2B
- NT	P (National Toxicology Program)	
CAS: 98-82-8	cumene	R
CAS: 130-15-4	1,4-naphthoquinone	R
CAS: 91-20-3	naphthalene	R
- OS	HA-Ca (Occupational Safety & Health Administration)	
None of the ingr	edients 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.
- 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.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

# - 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	not regulated	
- UN proper shipping name - DOT, IMDG, IATA	not regulated	
- Transport hazard class(es)		
- DOT, ADN, IMDG, IATA		
- Class	not regulated	
- Packing group		
- DOT, IMDG, IATA	not regulated	

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- Environmental hazards: - Marine pollutant:	No	
- Special precautions for user	Not applicable.	
- Transport in bulk according to Annex II of I and the IBC Code	MARPOL73/78  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

Sara		
- Section 355 (extremely hazardous substances):		
None of the ingredients is listed.		
- Section 313 (Specific toxic chemical listings):		
CAS: 79-10-7	acrylic acid	
CAS: 80-15-9	dimethylbenzyl hydroperoxide	
CAS: 98-82-8	cumene	
CAS: 98-86-2	acetophenone	
CAS: 91-20-3	naphthalene	
CAS: 1330-20-7	Mixed Xylenes	
CAS: 100-41-4	ethylbenzene	
- TSCA (	Toxic Substances Control Act):	
All components h	nave the value ACTIVE.	
- Haza	ardous Air Pollutants	
CAS: 79-10-7	acrylic acid	
CAS: 98-82-8	cumene	
CAS: 98-86-2	acetophenone	
CAS: 130-15-4	1,4-naphthoquinone	
CAS: 91-20-3	naphthalene	
CAS: 1330-20-7	Mixed Xylenes	

# CAS: 100-41-4 ethylbenzene - **Proposition 65**

- คางคงรแบบ ชีว			
- Chemicals known to cause cancer:			
CAS: 98-82-8	cumene		
CAS: 91-20-3	naphthalene		
CAS: 100-41-4	ethylbenzene		
- Ch	- Chemicals known to cause reproductive toxicity for females:		
None of the ing	None of the ingredients is listed.		
- Ch	- 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)	
CAS: 98-82-8	cumene	D, CBI
CAS: 98-86-2	acetophenone	D
CAS: 91-20-3	naphthalene	C, CBI
CAS: 1330-20-7	Mixed Xylenes	1
CAS: 100-41-4	ethylbenzene	D
- TLV	(Threshold Limit Value)	
CAS: 79-10-7	acrylic acid	A
CAS: 91-20-3	naphthalene	A
CAS: 1330-20-7	Mixed Xylenes	A
CAS: 100-41-4	ethylbenzene	A

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# - 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
- Classification System:
  - HMIS-ratings (scale 0 4)



™ Health = \*3

- NFPA ratings (scale 0 - 4)



Health = 3 Fire = 1 Reactivity = 0

- Date of preparation / last revision 05/03/2022 / 66
- Abbreviations and acronyms:

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

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
Flam. Liq. 3: Flammable liquids – Category 3
Flam. Liq. 4: Flammable liquids – Category 4
Self-react. F: Self-reactive substances and mixtures – Type E/F

Org. Perox. E: Organic peroxides - Type E/F

Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 3: Acute toxicity – Category 3
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Corr. 1B: Skin corrosion/irritation – Category 1B

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

Skin Sens. 1B: Skin sensitisation – Category 1B Carc. 2: Carcinogenicity – Category 2

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

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2 Asp. Tox. 1: Aspiration hazard – Category 1

- \* Data compared to the previous version altered.

#### Disclaimer

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# Safety Data Sheet acc. to OSHA HCS

Printing date 10/07/2022 Reviewed on 10/07/2022

#### 1 Identification

#### - Product identifier

- Trade name: DriveGrip®

- Synonyms: 470 DriveGrip® Anti Cam-Out Fluid

- Part number: VT470

- Application of the substance / the mixture Assembly adhesive

# - 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 The product is not classified, according to the Globally Harmonized System (GHS).

- Label elements
  - GHS label elements Void
    - Hazard pictograms Void
    - Signal word Void
    - Hazard statements Void
- 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: 409-21-2	silicon carbide	Carcinogenicity 1B, H350	20 – 29%	
CAS: 11138-66-2	Gum xanthan	Combustible Dust	1 – 4%	
CAS: 9002-89-5	Intermediate copolymer	Eye Irritation 2B, H320; Combustible Dust	1 – 4%	

# 4 First-aid measures

# - Description of first aid measures

- General information: No special measures required.
- 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.
- 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.

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Trade name: DriveGrip®

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# 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: None.
- Specific end use(s) No further relevant information available.

## 8 Exposure controls/personal protection

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

#### - Control parameters

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

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

#### CAS: 409-21-2 silicon carbide

PEL Long-term value: 15\* 5\*\* mg/m³

fibrous dust: \*total dust \*\*respirable fraction

REL Long-term value: 10\* 5\*\* mg/m³

\*total dust \*\*respirable fraction

TLV Long-term value: 10\* 3\*\* mg/m³ fibrous dust:0.1 f/cc;, nonfibrous:\*inh.,\*\*resp.

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

#### - Exposure controls

- · Personal protective equipment:
  - General protective and hygienic measures: Immediately remove all soiled and contaminated clothing.
  - 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:



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

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# - 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: Not required.
- Body protection: Protective work clothing

# 9 Physical and chemical properties

9 Physical and chemical properties		
- Information on basic physical and c - General Information - Appearance:		
- Form:	Viscous	
- Color:	Dark grey	
- Odor:	Characteristic	
- Odor threshold:	Not determined.	
- pH-value:	Not determined.	
<ul> <li>Change in condition</li> <li>Melting point/Melting range:</li> <li>Boiling point/Boiling range:</li> </ul>	Undetermined. ≥ 100 °C (≥ 212 °F)	
- Flash point:	≥ 100 °C (≥ 212 °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: - Upper:	Not determined. Not determined.	
- Vapor pressure at 20 °C (68 °F):	≤ 23 hPa (≤ 17.3 mm Hg)	
<ul> <li>Density at 20 °C (68 °F):</li> <li>Relative density</li> <li>Vapor density</li> <li>Evaporation rate</li> </ul>	~ 1.62191 g/cm³ (~ 13.53484 lbs/gal)  Not determined.  Not determined.  Not determined.	
- Solubility in / Miscibility with - Water:	Not miscible or difficult to mix.	
- Partition coefficient (n-octanol/w	rater): Not determined.	
<ul> <li>Viscosity:         <ul> <li>Dynamic at 20 °C (68 °F):</li> <li>Kinematic:</li> </ul> </li> </ul>	215,000 – 400,00 mPas Not determined.	
- Solvent content:		
- Water:	65.8 %	
- VOC content:	0.00 % 0.0 g/l / 0.00 lb/gal	
- Solids content:	34.2 %	
- 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.

Printing date 10/07/2022 Reviewed on 10/07/2022

Trade name: DriveGrip®

(Contd. of page 3)

- 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: 9002-89-5 Intermediate copolymer

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

- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: No 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:

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

Irritant

- Carcinogenic categories

2A		
3		
- NTP (National Toxicology Program)		
- 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.
- 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: Smaller quantities can be disposed of with household waste.
- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

# 14 Transport information

# - UN-Number

- DOT, ADN, IMDG, IATA not regulated
- UN proper shipping name
  - DOT, ADN, IMDG, IATA not regulated
- Transport hazard class(es)
  - DOT, ADN, IMDG, IATA
    - Class not regulated

Printing date 10/07/2022 Reviewed on 10/07/2022

Trade name: DriveGrip®

(Contd. of page 4)

- Packing group - DOT, 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):

CAS: 3251-23-8 copper dinitrate

- 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)

 CAS: 409-21-2
 silicon carbide
 A2

 CAS: 107-22-2
 glyoxal
 A4

- 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
- Classification System:
  - HMIS-ratings (scale 0 4)



- NFPA ratings (scale 0 - 4)



Printing date 10/07/2022 Reviewed on 10/07/2022

Trade name: DriveGrip®

(Contd. of page 5)

#### - Date of preparation / last revision 10/07/2022 / 35

#### Abbreviations and acronyms:

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

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

Eye Irritation 2B: Serious eye damage/eye irritation – Category 2B Carcinogenicity 1B: Carcinogenicity – Category 1B

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

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# Safety Data Sheet acc. to OSHA HCS

Printing date 02/09/2022 Reviewed on 02/09/2022

# 1 Identification

#### - Product identifier

- Trade name: Vibra-TITE® Threadlocker

- Synonyms: 121 Medium Strength Threadlocker

- Part number: VT121

- Application of the substance / the mixture Thread Locking

# - 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

Carc. 2 H351 Suspected of causing cancer.



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 GHS08

- Signal word Warning

# - Hazard-determining components of labeling:

2-(2-methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate

2'-phenylacetohydrazide

# - Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H335 May cause respiratory irritation.

# - Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

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.

# Safety Data Sheet

Printing date 02/09/2022 Reviewed on 02/09/2022

#### Trade name: Vibra-TITE® Threadlocker

(Contd. of page 1)

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P280 Wear protective gloves.

P280 Wear eye protection / face protection.

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.

P362+P364
P332+P313
Take off contaminated clothing and wash it before reuse.
If skin irritation occurs: Get medical advice/attention.
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: 25852-47-5	2-(2-methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate	
	Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	
CAS: 80-15-9	dimethylbenzyl hydroperoxide	≤ 1%
	Self-react. F, H242; Org. Perox. E, H242; Acute Tox. 3, H331; STOT RE 2, H373; Asp. Tox. 1, H304; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; STOT SE 3, H335; Flam. Liq. 4, H227	
CAS: 114-83-0	2'-phenylacetohydrazide	≤ 1%
	Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	
CAS: 98-82-8	cumene	≤ 1%
	Flam. Liq. 3, H226; Carc. 2, H351; Asp. Tox. 1, H304; Acute Tox. 4, H302; STOT SE 3, H335	

# 4 First-aid measures

#### - Description of first aid measures

#### - After inhalation:

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.
- 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.

Printing date 02/09/2022 Reviewed on 02/09/2022

Trade name: Vibra-TITE® Threadlocker

(Contd. of page 2)

# - Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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.

No special precautions are necessary if used correctly.

- 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.

Store in cool, dry conditions in well sealed receptacles.

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

# 8 Exposure controls/personal protection

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

#### - Control parameters

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

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

		,
CAS: 80-15-9 dimethylbenzyl hydroperoxide		
	WEEL	Long-term value: 6 mg/m³, 1 ppm Skin
	CAS: 9	8-82-8 cumene
	PEL	Long-term value: 245 mg/m³, 50 ppm Skin
	REL	Long-term value: 245 mg/m³, 50 ppm Skin
	TLV	Long-term value: 5 ppm A3

- 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:

Not required.

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.

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Trade name: Vibra-TITE® Threadlocker

(Contd. of page 3)

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

# 9 Physical and chemical properties

9 Physical and chemical properties		
- Information on basic physical and chemical properties - General Information		
- Appearance:		
- Form:	Liquid	
- Color:	Blue	
- Color:	Characteristic	
- Odor threshold:	Not determined.	
- pH-value:	Not determined.	
•	Not determined.	
- Change in condition		
- Melting point/Melting range:	Undetermined.	
<ul> <li>Boiling point/Boiling range:</li> </ul>	≥ 200 °C (≥ 392 °F)	
- Flash point:	95 °C (203 °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 at 20 °C (68 °F):	n.a. hPa	
- Density at 20 °C (68 °F):	~ 1.07 g/cm³ (~ 8.92915 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/wa	ter): Not determined.	
- Viscosity:		
- Dynamic:	Not determined.	
- Kinematic:	Not determined.	
- Solvent content:		
- Organic solvents:	1.0 %	
- Water:	0.4 %	
- VOC content:	0.98 %	
	~ 10.5 g/l / ~ 0.09 lb/gal	
- Solids content:	96.1 %	
- 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:

Aldehyde

Hydrocarbons

Printing date 02/09/2022 Reviewed on 02/09/2022

Trade name: Vibra-TITE® Threadlocker

(Contd. of page 4)

# 11 Toxicological information

#### - Information on toxicological effects

- Acute toxicity:

- LI	- LD/LC50 values that are relevant for classification:		
ATE (Acut	ATE (Acute Toxicity Estimate)		
Inhalative	Inhalative LC50/4 h 26,190 mg/l (rat)		
CAS: 80-1	5-9 dimet	hylbenzyl hydroperoxide	
Oral	LD50	382 mg/kg (rat)	
Dermal	LD50	500 mg/kg (rat)	
Inhalative	LC50/4 h	220 mg/l (rat)	
CAS: 114-	83-0 2'-ph	nenylacetohydrazide	
Oral	LD50	270 mg/kg (mouse)	
CAS: 98-8	CAS: 98-82-8 cumene		
Oral	LD50	1,400 mg/kg (rat)	
Dermal	LD50	12,300 mg/kg (rabbit)	
Inhalative	LC50/4 h	24.7 mg/l (mouse)	

#### - 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 (Internation	nal Agency for Research on Cancer)	
CAS: 98-82-8 cumene		2B
CAS: 13463-67-7 titanium dioxid	de	2B
- NTP (National To	xicology Program)	
CAS: 98-82-8 cumene		R
CAS: 130-15-4 1,4-naphthoquin	one	R
- OSHA-Ca (Occup	pational 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.
- 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.

Printing date 02/09/2022 Reviewed on 02/09/2022

Trade name: Vibra-TITE® Threadlocker

(Contd. of page 5)

14 Transport information		
- UN-Number - DOT, ADN, IMDG, IATA	not regulated	
- UN proper shipping name - DOT, ADN, IMDG, IATA	not regulated	
- Transport hazard class(es)		
- DOT, ADN, IMDG, IATA - Class	not regulated	
- Packing group - DOT, IMDG, IATA	not regulated	
- Environmental hazards: - Marine pollutant:	No	
- Special precautions for user	Not applicable.	
- Transport in bulk according to Annex II of MARPOL and the IBC Code	.73/78  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

- Se	- Section 355 (extremely hazardous substances):		
None of the ing	None of the ingredients is listed.		
- Se	- Section 313 (Specific toxic chemical listings):		
CAS: 80-15-9	dimethylbenzyl hydroperoxide		
CAS: 98-82-8	cumene		
CAS: 98-86-2	acetophenone		
- TSCA	(Toxic Substances Control Act):		
All components	have the value ACTIVE.		
- Ha	- Hazardous Air Pollutants		
CAS: 98-82-8	cumene		
CAS: 98-86-2	acetophenone		
CAS: 130-15-4	1,4-naphthoquinone		

# - Proposition 65

- Che	emicals known to cause cancer:
CAS: 98-82-8	cumene
- Che	emicals known to cause reproductive toxicity for females:
None of the ingr	edients is listed.
- Che	emicals known to cause reproductive toxicity for males:
None of the ingr	edients is listed.

- Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

# - Carcinogenic categories

0 0 .	megeme entegenee	
- E	PA (Environmental Protection Agency)	
CAS: 98-82-8	cumene	D, CBD
CAS: 98-86-2	acetophenone	D
- TI	LV (Threshold Limit Value)	
CAS: 13463-6	7-7 titanium dioxide	A4
- N	IOSH-Ca (National Institute for Occupational Safety and Health)	
CAS: 13463-6	7-7 titanium dioxide	

<sup>-</sup> Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

Printing date 02/09/2022 Reviewed on 02/09/2022

Trade name: Vibra-TITE® Threadlocker

(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
- Classification System:
  - HMIS-ratings (scale 0 4)



Fire = 1

- NFPA ratings (scale 0 - 4)



Health = 2 Fire = 1Reactivity = 0

- Date of preparation / last revision 02/09/2022 / 102

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 NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit
Flam. Liq. 3: Flammable liquids – Category 3
Flam. Liq. 4: Flammable liquids – Category 4
Self-react. F: Self-reactive substances and mixtures – Type E/F

Org. Perox. E: Organic peroxides – Type E/F

Acute Tox. 4: Acute toxicity – Category 4 Acute Tox. 3: Acute toxicity – Category 3

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

Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard - Category 1

- \* Data compared to the previous version altered.

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# Safety Data Sheet acc. to OSHA HCS

Printing date 12/13/2021 Reviewed on 08/30/2021

#### 1 Identification

#### - Product identifier

- Trade name: Vibra-TITE® Threadlocker

- Synonyms: 140 High Strength Threadlocker

- Part number: VT140

- Application of the substance / the mixture Thread Locking

# - 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.



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 GHS08

- Signal word Warning

# - Hazard-determining components of labeling:

2-phenoxyethyl methacrylate

2-(2-methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate

Bisphenol A epoxy Acrylate

2-carboxyethyl acrylate

Modified Epoxy Acrylate Oligomer

2-Butenedioic acid (2Z)

2'-phenylacetohydrazide

# - Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H361 Suspected of damaging fertility or the unborn child.

H335 May cause respiratory irritation.

#### - Precautionary statements

P201 Obtain special instructions before use.

Printing date 12/13/2021 Reviewed on 08/30/2021

#### Trade name: Vibra-TITE® Threadlocker

(Contd. of page 1) P202 Do not handle until all safety precautions have been read and understood. 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. Wear protective gloves/protective clothing/eye protection/face protection. P280 P280 Wear protective gloves. P280 Wear eye protection / face protection. 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. Call a poison center/doctor if you feel unwell. P312 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. Specific treatment (see on this label). P321 P337+P313 If eye irritation persists: Get medical advice/attention. Wash contaminated clothing before reuse. P363 P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. P501

# - 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.

<ul> <li>Dangerous</li> </ul>	components:	
CAS: 25852-47-5	2-(2-methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate	30 – 39%
	Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	
CAS: 10595-06-9	2-phenoxyethyl methacrylate	20 – 29%
	Repr. 2, H361; Skin Sens. 1A, H317	
	Acrylic polymer	10 – 19%
	Combustible Dust	
CAS: 1985-51-9	Neopentylglycol Dimethacrylate	9.20%
	Skin Irrit. 2, H315; Eye Irrit. 2A, H319	
	Bisphenol A epoxy Acrylate	5 – 9%
	Skin Sens. 1, H317	
	Modified Epoxy Acrylate Oligomer	1 – 4%
	Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317	
CAS: 35227-05-5	2-Propenoic acid, 2-methyl-, polymer	1 – 4%
	Combustible Dust	
CAS: 24615-84-7	2-carboxyethyl acrylate	1 – 4%
	Skin Corr. 1B, H314; Eye Dam. 1, H318; STOT SE 3, H335	
CAS: 80-15-9	dimethylbenzyl hydroperoxide	≤ 1%
	Self-react. F, H242; Org. Perox. E, H242; Acute Tox. 3, H331; STOT RE 2, H373; Asp. Tox. 1, H304; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; STOT SE 3, H335; Flam. Liq. 4, H227	
CAS: 110-16-7	2-Butenedioic acid (2Z)	≤ 1%
	Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	
CAS: 114-83-0	2'-phenylacetohydrazide	≤ 1%
	Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	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.

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(Contd. of page 2)

#### - 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.
- 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:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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.

No special precautions are necessary if used correctly.

- 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.

Store in cool, dry conditions in well sealed receptacles.

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

# 8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
  - Components with limit values that require monitoring at the workplace:

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

# CAS: 80-15-9 dimethylbenzyl hydroperoxide

WEEL Long-term value: 6 mg/m³, 1 ppm

Skin

- 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.

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Trade name: Vibra-TITE® Threadlocker

(Contd. of page 3)

# - Breathing equipment:

Not required.

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

# 9 Physical and chemical properties

- Information on basic physical and chen	nical properties
- General Information	
- Appearance:	
- Form:	Fluid
- Color:	Red
- Odor:	Characteristic
- Odor threshold:	Not determined.
- pH-value:	Not determined.
- Change in condition	
<ul> <li>Melting point/Melting range:</li> </ul>	Undetermined.
<ul> <li>Boiling point/Boiling range:</li> </ul>	> 140 °C (> 284 °F)
- Flash point:	94 °C (201.2 °F)
- Flammability (solid, gaseous):	Not applicable.
- Ignition temperature:	n.a. °C
- 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):	~ 1.1 g/cm³ (~ 9.1795 lbs/gal)
- Relative density	Not determined.
<ul> <li>Vapor density</li> </ul>	Not determined.
- Evaporation rate	Not determined.
- Solubility in / Miscibility with	
- Water:	Not miscible or difficult to mix.
- Partition coefficient (n-octanol/wate	r): Not determined.
- Viscosity:	
- Dynamic:	Not determined.
- Kinematic:	Not determined.
- Solvent content:	
- Organic solvents:	0.7 %
- Water:	0.8 %

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(Contd. of page 4)

- VOC content:	0.68 % ~ 7.4 g/l / ~ 0.06 lb/gal	
- Solids content:	39.6 %	
- 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:

Aldehyde

Hydrocarbons

# 11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:

	COMPLET	
- LI	D/LC50 v	alues that are relevant for classification:
ATE (Acut	e Toxicity	r Estimate)
Inhalative	LC50/4 h	29,101 mg/l (rat)
CAS: 80-1	5-9 dimet	hylbenzyl hydroperoxide
Oral	LD50	382 mg/kg (rat)
Dermal	LD50	500 mg/kg (rat)
Inhalative	LC50/4 h	220 mg/l (rat)
CAS: 110-	16-7 2-Bu	tenedioic acid (2Z)
Oral	LD50	708 mg/kg (rat)
Dermal	LD50	1,560 mg/kg (rabbit)
CAS: 114-	83-0 2'-ph	enylacetohydrazide
Oral	LD50	270 mg/kg (mouse)

- 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

- IAF	RC (International Agency for Research on Cancer)	
CAS: 9003-01-4	2-propenoic acid, homopolymer	3
CAS: 79-10-7	acrylic acid	3
CAS: 98-82-8	cumene	2B
- NT	P (National Toxicology Program)	
CAS: 98-82-8	cumene	R
CAS: 130-15-4	1,4-naphthoquinone	R
- OS	HA-Ca (Occupational Safety & Health Administration)	
None of the ing	redients 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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Trade name: Vibra-TITE® Threadlocker

(Contd. of page 5)

# - 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, ADN, IMDG, IATA	not regulated	
- UN proper shipping name - DOT, ADN, IMDG, IATA	not regulated	
- Transport hazard class(es)		
- DOT, ADN, IMDG, IATA - Class	not regulated	
- Packing group - DOT, IMDG, IATA	not regulated	
- Environmental hazards: - Marine pollutant:	No	
- Special precautions for user	Not applicable.	
- Transport in bulk according to Annex II of and the IBC Code	of MARPOL73/78  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

- Sec	ction 355 (extremely hazardous substances):
None of the ingr	redients is listed.
- Sec	ction 313 (Specific toxic chemical listings):
CAS: 1985-51-9	Neopentylglycol Dimethacrylate
CAS: 80-15-9	dimethylbenzyl hydroperoxide
CAS: 79-10-7	acrylic acid
CAS: 98-82-8	cumene
CAS: 98-86-2	acetophenone
- TSCA	(Toxic Substances Control Act):
All components	have the value ACTIVE.
- Haz	zardous Air Pollutants
CAS: 79-10-7	acrylic acid
CAS: 98-82-8	cumene
CAS: 98-86-2	acetophenone
CAS: 130-15-4	1,4-naphthoquinone

# - Proposition 65

<ul> <li>Chemicals known to cause cancer:</li> </ul>	
CAS: 98-82-8 cumene	

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(Contd. of page 6) - 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

- El	PA (Environmental Protection Agency)	
CAS: 98-82-8	cumene	D, CBD
CAS: 98-86-2	acetophenone	D
- TL	LV (Threshold Limit Value)	
CAS: 79-10-7	acrylic acid	A
- NI	IOSH-Ca (National Institute for Occupational Safety and Health)	
None of the in	gredients 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
- Classification System:
  - HMIS-ratings (scale 0 4)



- NFPA ratings (scale 0 - 4)



- Date of preparation / last revision 12/13/2021 / 78

# 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
Flam. Liq. 4: Flammable liquids – Category 4

Self-react. F: Self-reactive substances and mixtures – Type E/F Org. Perox. E: Organic peroxides – Type E/F

Org. Perox. E. Organic peroxides – Type EIF
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 3: Acute toxicity – Category 3
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
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

Skin Sens. 1A: Skin sensitisation – Category 1A 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 Asp. Tox. 1: Aspiration hazard – Category 1

# - \* 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.

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Trade name: Vibra-TITE® Threadlocker

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

Printing date 09/13/2022 Reviewed on 08/12/2022

#### 1 Identification

#### - Product identifier

- Trade name: Vibra-TITE® Threadlocker

- Synonyms: 150 Medium Strength Wicking Grade Threadlocker

- Part number: VT150

- Application of the substance / the mixture Thread Locking

# - 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

Carcinogenicity 2 H351 Suspected of causing cancer.

Specific Target Organ Toxicity - Repeated Exposure 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Skin Irrititation 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





- Signal word Warning

# - Hazard-determining components of labeling:

2-(2-methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate methacrylic acid, monoester with propane-1,2-diol dimethylbenzyl hydroperoxide Modified Epoxy Acrylate Oligomer 2'-phenylacetohydrazide

# - Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

# - Precautionary statements

Obtain special instructions before use.

(Contd. of page 1)

# Safety Data Sheet acc. to OSHA HCS

Printing date 09/13/2022 Reviewed on 08/12/2022

## Trade name: Vibra-TITE® Threadlocker

		 1 3 /
P260	Do not breathe dust/fume/gas/mist/vapors/spray.	
F200	Do not breatile dustrume/gas/mist/vapors/spray.	
D004	AA7 1 (I I I I I I I I I I I I I I I I I I	
P264	Wash thoroughly after handling.	
	Tracin and daging anter manage	
D074	Llas anly authors or in a well ventilated area	

P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P280 Wear protective gloves.

P280 Wear eye protection / face protection.

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.

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: 25852-47-5	2-(2-methylprop-2-enoyloxy)ethyl 2-methylprop-2-enoate	70 – 79%
	Skin Irrititation 2, H315; Eye Irritation 2A, H319; Specific Target Organ Toxicity - Single Exposure 3, H335	
CAS: 27813-02-1	methacrylic acid, monoester with propane-1,2-diol	10 – 19%
	Eye Irritation 2A, H319; Sensitization - Skin 1, H317	
	Modified Epoxy Acrylate Oligomer	1 – 4%
	Explosives 1.3, H203; Skin Irrititation 2, H315; Eye Irritation 2A, H319; Sensitization - Skin 1, H317	
CAS: 80-15-9	dimethylbenzyl hydroperoxide	1 – 4%
	Self-reactive substances and mixtures - Type F, H242; Organic Peroxides - Type E, H242; Acute Toxicity - Inhalation 3, H331; Specific Target Organ Toxicity - Repeated Exposure 2, H373; Aspiration Hazard 1, H304; Skin Corrosion 1B, H314; Eye Damage 1, H318; Acute Toxicity - Oral 4, H302; Acute Toxicity - Dermal 4, H312; Specific Target Organ Toxicity - Single Exposure 3, H335; Flammable Liquids 4, H227	
CAS: 114-83-0	2'-phenylacetohydrazide	≤ 1%
	Acute Toxicity - Oral 4, H302; Skin Irrititation 2, H315; Eye Irritation 2A, H319; Sensitization - Skin 1, H317; Specific Target Organ Toxicity - Single Exposure 3, H335	
CAS: 98-82-8	cumene	≤ 1%
	Flammable Liquids 3, H226; Carcinogenicity 2, H351; Aspiration Hazard 1, H304; Acute Toxicity - Oral 4, H302; Specific Target Organ Toxicity - Single Exposure 3, H335	

# 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.

Printing date 09/13/2022 Reviewed on 08/12/2022

Trade name: Vibra-TITE® Threadlocker

(Contd. of page 2)

# 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.
- 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:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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.

No special precautions are necessary if used correctly.

- 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.

Store in cool, dry conditions in well sealed receptacles.

- 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:

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

# CAS: 80-15-9 dimethylbenzyl hydroperoxide WEEL Long-term value: 6 mg/m³, 1 ppm Skin CAS: 98-82-8 cumene PEL Long-term value: 245 mg/m³, 50 ppm Skin REL Long-term value: 245 mg/m³, 50 ppm Skin TLV Long-term value: 5 ppm A3

- 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.

Printing date 09/13/2022 Reviewed on 08/12/2022

Trade name: Vibra-TITE® Threadlocker

(Contd. of page 3)

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:

Not required.

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

# 9 Physical and chemical properties

nformation on basic physical and che	mical properties
- General Information	mour proportion
- Appearance:	
Form:	Fluid
- Color:	Green
- Odor:	Characteristic
- Odor threshold:	Not determined.
- pH-value:	Not determined.
- Change in condition	
<ul> <li>Melting point/Melting range:</li> </ul>	Undetermined.
<ul> <li>Boiling point/Boiling range:</li> </ul>	≥ 200 °C (≥ 392 °F)
- Flash point:	95 °C (203 °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 at 20 °C (68 °F):	≤ 0.1 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/wate	er): Not determined.
- Viscosity:	
- Dynamic:	Not determined.
- Kinematic:	Not determined.
- Solvent content:	
- Organic solvents:	0.8 %

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- Water: - VOC content:	1.3 % 0.80 % 8.0 g/l / 0.07 lb/gal	
- Solids content:	77.5 %	
- 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:

Aldehyde

Hydrocarbons

# 11 Toxicological information

# - Information on toxicological effects

- Acute toxicity:

- LI	D/LC50 v	alues that are relevant for classification:
ATE (Acu	te Toxicity	r Estimate)
Oral	LD50	22,738 mg/kg (rat)
Dermal	LD50	29,762 mg/kg (rat)
Inhalative	LC50/4 h	13,095 mg/l (rat)
CAS: 80-1	5-9 dimet	hylbenzyl hydroperoxide
Oral	LD50	382 mg/kg (rat)
Dermal	LD50	500 mg/kg (rat)
Inhalative	LC50/4 h	220 mg/l (rat)
CAS: 114-	-83-0 2'-ph	enylacetohydrazide
Oral	LD50	270 mg/kg (mouse)
CAS: 98-8	2-8 cume	ne
Oral	LD50	1,400 mg/kg (rat)
Dermal	LD50	12,300 mg/kg (rabbit)
Inhalative	LC50/4 h	24.7 mg/l (mouse)

- 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:

# - Carcinogenic categories

- IAF	RC (International Agency for Research on Cancer)	
CAS: 98-82-8	cumene	2E
CAS: 91-20-3	naphthalene	2E
CAS: 1330-20-7	Mixed Xylenes	3
CAS: 100-41-4	ethylbenzene	2E
- NT	P (National Toxicology Program)	
CAS: 98-82-8	cumene	F
CAS: 130-15-4	1,4-naphthoquinone	R
CAS: 91-20-3	naphthalene	F
- os	HA-Ca (Occupational Safety & Health Administration)	
None of the ingr	edients is listed.	
		(Contd. on none

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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: Harmful to fish
- 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.

Harmful to 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, ADN, IMDG, IATA	not regulated
- UN proper shipping name - DOT, ADN, IMDG, IATA	not regulated
- Transport hazard class(es)	
- DOT, ADN, IMDG, IATA - Class	not regulated
- Packing group - DOT, IMDG, IATA	not regulated
- Environmental hazards: - Marine pollutant:	No
- Special precautions for user	Not applicable.
- Transport in bulk according to Annex II of and the IBC Code	f MARPOL73/78  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

Ouru	
- Sec	tion 355 (extremely hazardous substances):
None of the ingre	edients is listed.
- Sec	tion 313 (Specific toxic chemical listings):
CAS: 80-15-9	dimethylbenzyl hydroperoxide
CAS: 98-82-8	cumene
CAS: 91-20-3	naphthalene
CAS: 1330-20-7	Mixed Xylenes
CAS: 100-41-4	ethylbenzene
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(Contac or page o
\(\text{(Toxic Substances Control Act):}
s have the value ACTIVE.
azardous Air Pollutants
cumene
1,4-naphthoquinone
naphthalene
-7 Mixed Xylenes
ethylbenzene ethylbenzene

## - Proposition 65

	1 reposition to		
- Ch	- Chemicals known to cause cancer:		
CAS: 98-82-8	cumene		
CAS: 91-20-3	naphthalene		
CAS: 100-41-4	ethylbenzene		
- Ch	- Chemicals known to cause reproductive toxicity for females:		
None of the ing	None of the ingredients is listed.		
- Ch	emicals known to cause reproductive toxicity for males:		
None of the ing	None of the ingredients is listed.		
- Chemicals known to cause developmental toxicity:			
None of the ing	None of the ingredients is listed.		

#### - Carcinogenic categories

- EPA	(Environmental Protection Agency)	
CAS: 98-82-8	cumene	D, CBD
CAS: 91-20-3	naphthalene	C, CBD
CAS: 1330-20-7	Mixed Xylenes	I
CAS: 100-41-4	ethylbenzene	D
- TLV	(Threshold Limit Value)	
CAS: 91-20-3	naphthalene	A4
CAS: 1330-20-7	Mixed Xylenes	A4
CAS: 100-41-4	ethylbenzene	A3
- NIO	SH-Ca (National Institute for Occupational Safety and Health)	
None of the ingre	edients 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
- Classification System:
  - HMIS-ratings (scale 0 4)



- NFPA ratings (scale 0 - 4)



- Date of preparation / last revision 09/13/2022 / 43
- 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

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NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
REL: Recommended Exposure Limit
Explosives 1.3: Explosives – Division 1.3
Flammable Liquids 3: Flammable liquids – Category 3
Flammable Liquids 4: Flammable liquids – Category 4
Self-reactive substances and mixtures - Type F: Self-reactive substances and mixtures - Type E/F
Organic Peroxides - Type E: Organic peroxides – Type E/F
Acute Toxicity - Oral 4: Acute toxicity – Category 4
Acute Toxicity - Inhalation 3: Acute toxicity – Category 3
Skin Corrosion 1B: Skin corrosion/irritation – Category 1B
Skin Irrititation 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 2
Sensitization - Skin 1: Skin sensitisation – Category 1
Carcinogenicity 2: Carcinogenicity – Category 2
Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 2
Aspiration Hazard 1: Aspiration hazard – Category 1

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

#### - Disclaimer

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