

Kit Components

Product code	Description
VTPB420	Vibra-TITE® Methacrylate Adhesives PB420 All Purpose - Fast Set Time; High Strength

Components:

VTPB420A	Vibra-TITE® Methacrylate Adhesives PB420 All Purpose - Fast Set Time; High Strength - Part A
VTPB420B	Vibra-TITE® Methacrylate Adhesives PB420 All Purpose - Fast Set Time; High Strength - Part B

Safety Data Sheet
acc. to OSHA HCS

Printing date 05/03/2019

Reviewed on 05/03/2019

1 Identification

- Product identifier

- **Trade name:** Vibra-TITE® Methacrylate Adhesives
- **Synonyms:** PB420 All Purpose - Fast Set Time; High Strength - Part A
- **Part number:** VTPB420A
- **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



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



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.

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



GHS02 GHS05 GHS07 GHS08

- **Signal word** Danger

- Hazard-determining components of labeling:

methyl methacrylate
Methacrylic acid
N,N-dimethyl-p-toluidine
(1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate
Rosin
Monofunctional acid ester

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- Hazard statements

- H225 Highly flammable liquid and vapor.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 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

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P233 Keep container tightly closed.
 P240 Ground/bond container and receiving equipment.
 P241 Use explosion-proof electrical/ventilating/lighting/equipment.
 P242 Use only non-sparking tools.
 P260 Do not breathe dust/fume/gas/mist/vapors/spray.
 P261 Avoid breathing dust/fume/gas/mist/vapors/spray
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P280 Wear protective gloves.
 P280 Wear eye protection / face protection.
 P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a poison center/doctor.
 P321 Specific treatment (see on this label).
 P312 Call a poison center/doctor if you feel unwell.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:**- NFPA ratings (scale 0 - 4)****- HMIS-ratings (scale 0 - 4)****- 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: 80-62-6	methyl methacrylate Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	60 – 69%
CAS: 79-41-4	Methacrylic acid 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	4.5%
CAS: 24448-20-2	(1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediy)l bismethacrylate Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1B, H317	1 – 4%
CAS: 99-97-8	N,N-dimethyl-p-toluidine Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Carc. 2, H351; STOT RE 2, H373; Flam. Liq. 4, H227	1 – 4%
CAS: 8050-09-7	Rosin Skin Sens. 1, H317	≤ 1%
	Monofunctional acid ester Acute Tox. 3, H311; Skin Corr. 1C, H314; Eye Dam. 1, H318; Skin Sens. 1, H317	≤ 1%

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Trade name: Vibra-TITE® Methacrylate Adhesives

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4 First-aid measures

- Description of first aid measures

- General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

Supply fresh air; consult doctor in case of complaints.

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

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

- After swallowing: Immediately call a doctor.

- Information for doctor:

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

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

No further relevant information available.

5 Fire-fighting measures

- Extinguishing media

- Suitable extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

CO₂, sand, extinguishing powder. Do not use water.

- For safety reasons unsuitable extinguishing agents: Water with full jet

- Special hazards arising from the substance or mixture

No further relevant information available.

- Advice for firefighters

- Protective equipment:

Mouth respiratory protective device.

Wear self-contained respiratory protective device.

Wear fully protective suit.

* 6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources

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).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

Dispose of the collected material according to regulations.

- Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- Handling:

- Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- Conditions for safe storage, including any incompatibilities

- Storage:

- **Requirements to be met by storerooms and receptacles:** Store in a cool location.

- **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.

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- **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: 80-62-6 methyl methacrylate	
PEL	Long-term value: 410 mg/m ³ , 100 ppm
REL	Long-term value: 410 mg/m ³ , 100 ppm
TLV	Short-term value: 410 mg/m ³ , 100 ppm Long-term value: 205 mg/m ³ , 50 ppm DSEN
CAS: 79-41-4 Methacrylic acid	
REL	Long-term value: 70 mg/m ³ , 20 ppm Skin
TLV	Long-term value: 70 mg/m ³ , 20 ppm
CAS: 99-97-8 N,N-dimethyl-p-toluidine	
WEEL	Long-term value: 0.5 ppm
CAS: 8050-09-7 Rosin	
TLV	DSEN, RSEN, L

- **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:**

Tightly sealed goggles

- **Body protection:** Protective work clothing

9 Physical and chemical properties

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

Viscous

- **Color:**

Whitish

- **Odor:**

Pungent

- **Odor threshold:**

Not determined.

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- pH-value:	Not determined.
- Change in condition	
- Melting point/Melting range:	Undetermined.
- Boiling point/Boiling range:	≥ 101 °C (≥ 213.8 °F)
- Flash point:	10 °C (50 °F)
- Flammability (solid, gaseous):	Not applicable.
- Ignition temperature:	430 °C (806 °F)
- Decomposition temperature:	Not determined.
- Auto igniting:	Product is not selfigniting.
- Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- Explosion limits:	
- Lower:	2.1 Vol %
- Upper:	12.5 Vol %
- Vapor pressure at 20 °C (68 °F):	≤ 47 hPa (≤ 35.3 mm Hg)
- Density at 20 °C (68 °F):	~ 0.96 g/cm ³ (~ 8.0112 lbs/gal)
- Relative density	Not determined.
- Vapor density	Not determined.
- Evaporation rate	Not determined.
- Solubility in / Miscibility with	
- Water:	Not miscible or difficult to mix.
- Partition coefficient (n-octanol/water):	Not determined.
- Viscosity:	
- Dynamic at 20 °C (68 °F):	160,000 mPas
- Kinematic:	Not determined.
- Solvent content:	
- Organic solvents:	0.1 %
- Water:	0.0 %
- VOC content:	0.12 % ~ 1.2 g/l / ~ 0.01 lb/gal
- Solids content:	26.4 %
- Other information	No further relevant information available.

10 Stability and reactivity

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

*11 Toxicological information

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

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

ATE (Acute Toxicity Estimate)

Oral	LD50	6,503 mg/kg
Dermal	LD50	7,317 mg/kg
Inhalative	LC50/4 h	124 mg/l

CAS: 80-62-6 methyl methacrylate

Oral	LD50	7,872 mg/kg (rat)
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Trade name: Vibra-TITE® Methacrylate Adhesives

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CAS: 79-41-4 Methacrylic acid		
Oral	LD50	1,332 mg/kg (mouse)
Dermal	LD50	500 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/l (ATE)
CAS: 99-97-8 N,N-dimethyl-p-toluidine		
Oral	LD50	100 mg/kg (ATE)
Dermal	LD50	300 mg/kg (ATE)
Inhalative	LC50/4 h	3 mg/l (ATE)
Monofunctional acid ester		
Dermal	LD50	300 mg/kg (ATE)

- 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:

Harmful

Irritant

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

CAS: 80-62-6	methyl methacrylate	3
CAS: 9010-98-4	Neoprene rubber	3
CAS: 99-97-8	N,N-dimethyl-p-toluidine	2B
CAS: 14807-96-6	Soapstone	3

- NTP (National Toxicology Program)

CAS: 130-15-4	1,4-naphthoquinone	R
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- 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 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.

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**

UN1133

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Trade name: Vibra-TITE® Methacrylate Adhesives

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- UN proper shipping name - DOT - IMDG - IATA	Adhesives ADHESIVES (Methacrylate acid ester, 2-(2-Ethoxyethoxy)ethyl acrylate), MARINE POLLUTANT ADHESIVES
- Transport hazard class(es) - DOT  - Class - Label	3 Flammable liquids 3
- IMDG   - Class - Label	3 Flammable liquids 3
- IATA  - Class - Label	3 Flammable liquids 3
- Packing group - DOT, IMDG, IATA	III
- Environmental hazards: - Marine pollutant:	Product contains environmentally hazardous substances: (1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate No Symbol (fish and tree)
- Special precautions for user - Danger code (Kemler): - EMS Number: - Segregation groups - Stowage Category	Warning: Flammable liquids - F-E,S-D Acids A
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
- Transport/Additional information: - DOT - Quantity limitations	On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L
- IMDG - Limited quantities (LQ) - Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
- UN "Model Regulation":	UN 1133 ADHESIVES, 3, III, ENVIRONMENTALLY HAZARDOUS

*15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

- Section 355 (extremely hazardous substances):

None of the ingredients is listed.

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Trade name: Vibra-TITE® Methacrylate Adhesives

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- Section 313 (Specific toxic chemical listings):	
CAS: 80-62-6	methyl methacrylate
	Monofunctional acid ester
- TSCA (Toxic Substances Control Act):	
	methyl methacrylate ACTIVE
	Impact modifying resin ACTIVE
	Neoprene rubber ACTIVE
	Methacrylic acid ACTIVE
	(1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl) bismethacrylate ACTIVE
	N,N-dimethyl-p-toluidine ACTIVE
	Wax ACTIVE
	Rosin ACTIVE
	Monofunctional acid ester *
	propane-1,2-diol ACTIVE
	Soapstone ACTIVE
	Polymerization inhibitor ACTIVE
	1,4-naphthoquinone ACTIVE
	tetrasodium ethylenediaminetetraacetate ACTIVE
	Deionized water ACTIVE
- Hazardous Air Pollutants	
CAS: 80-62-6	methyl methacrylate
CAS: 130-15-4	1,4-naphthoquinone
- Proposition 65	
- Chemicals known to cause cancer:	
	Impact modifying resin
CAS: 99-97-8	N,N-dimethyl-p-toluidine
- Chemicals known to cause reproductive toxicity for females:	
	Impact modifying resin
	Monofunctional acid ester
- Chemicals known to cause reproductive toxicity for males:	
	Impact modifying resin
	Monofunctional acid ester
- Chemicals known to cause developmental toxicity:	
	Monofunctional acid ester
- Carcinogenic categories	
- EPA (Environmental Protection Agency)	
CAS: 80-62-6	methyl methacrylate E, NL
- TLV (Threshold Limit Value established by ACGIH)	
CAS: 80-62-6	methyl methacrylate A4
CAS: 14807-96-6	Soapstone 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 Affairs

- Contact: Safety, Health and Environmental Affairs

- Date of preparation / last revision 05/03/2019 / 24

- Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

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Trade name: Vibra-TITE® Methacrylate Adhesives

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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. 2: Flammable liquids – Category 2
Flam. Liq. 4: Flammable liquids – Category 4
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 3: Acute toxicity – Category 3
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Corr. 1C: Skin corrosion/irritation – Category 1C
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Skin Sens. 1: Skin sensitisation – Category 1
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

- * **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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1 Identification

- Product identifier

- **Trade name:** Vibra-TITE® Methacrylate Adhesives
- **Synonyms:** PB420 All Purpose - Fast Set Time; High Strength - Part B
- **Part number:** VTPB420B
- **Application of the substance / the mixture** Adhesives

- Details of the supplier of the safety data sheet

- **Manufacturer/Supplier:**

ND Industries, Inc
1000 North Crooks Road
Clawson, MI 48017
USA
Telephone: +1-248-288-0000
Email: info@ndindustries.com
Website: www.ndindustries.com

- **Information department:** Product Safety Department

- **Emergency telephone number:**

United States: 1-800-424-9300
International: +1-703-527-3887

* 2 Hazard(s) identification

- Classification of the substance or mixture



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



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.
Flam. Liq. 4 H227 Combustible liquid.

- 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:

benzoyl peroxyde
dimethylbenzyl hydroperoxide
Bisphenol-A epoxy resin

- Hazard statements

H227 Combustible liquid.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.

- Precautionary statements

P201 Obtain special instructions before use.
P210 Keep away from flames and hot surfaces. – No smoking.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P264 Wash face, hands and any exposed skin thoroughly after handling.

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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.
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.
P314	Get medical advice/attention if you feel unwell.
P362+P364	Take off contaminated clothing and wash it before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P321	Specific treatment (see on this label).
P337+P313	If eye irritation persists: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use for extinction: CO2, powder or water spray.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:**- NFPA ratings (scale 0 - 4)**

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

- HMIS-ratings (scale 0 - 4)

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

- 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: 94-36-0	benzoyl peroxyde Org. Perox. B, H241; Eye Irrit. 2A, H319; Skin Sens. 1, H317	20 – 29%
CAS: 9003-63-8	Acrylic Polymer Combustible Dust	9.8%
CAS: 131298-44-7	branched C10-alkyl benzoates Acute Tox. 4, H332	5 – 9%
CAS: 1317-65-3	Calcium Carbonate Skin Irrit. 2, H315	5 – 9%
CAS: 80-15-9	dimethylbenzyl hydroperoxide 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	1 – 4%
CAS: 67762-90-7	Amorphous Silica Combustible Dust	1 – 4%
CAS: 557-05-1	zinc distearate STOT SE 3, H335	1 – 4%
CAS: 25068-38-6	Bisphenol-A epoxy resin Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	≤ 1%
CAS: 98-82-8	cumene Flam. Liq. 3, H226; Carc. 2, H351; Asp. Tox. 1, H304; Acute Tox. 4, H302; STOT SE 3, H335	≤ 1%

4 First-aid measures

- Description of first aid measures**- General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

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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:** Immediately call a doctor.
- **Information for doctor:**
 - **Most important symptoms and effects, both acute and delayed** No further relevant information available.
 - **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
 - **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
CO₂, sand, extinguishing powder. Do not use water.
 - **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
 - **Protective equipment:**
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
Keep away from ignition sources
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).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
Dispose of the collected material according to regulations.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
 - **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
 - **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
 - **Storage:**
 - **Requirements to be met by storerooms and receptacles:** No special requirements.
 - **Information about storage in one common storage facility:** Not required.
 - **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

* 8 Exposure controls/personal protection

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

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CAS: 80-15-9 dimethylbenzyl hydroperoxide	
WEEL	Long-term value: 6 mg/m ³ , 1 ppm Skin
CAS: 69012-64-2 Silica-Amorphous Silica fume	
TLV	TLV withdrawn
CAS: 557-05-1 zinc distearate	
PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV	Long-term value: 10 mg/m ³
CAS: 98-82-8 cumene	
PEL	Long-term value: 245 mg/m ³ , 50 ppm Skin
REL	Long-term value: 245 mg/m ³ , 50 ppm Skin
TLV	Long-term value: (246) NIC-0.5 mg/m ³ , (50) NIC-0.1 ppm NIC-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:

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

- Information on basic physical and chemical properties

- General Information

- Appearance:

- Form:

Viscous

- Color:

Whitish

- Odor:

Pungent

- Odor threshold:

Not determined.

- pH-value:

Not determined.

- Change in condition

- Melting point/Melting range:

Undetermined.

- Boiling point/Boiling range:

≥ 414 °C (≥ 777.2 °F)

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- Flash point:	84 °C (183.2 °F)
- Flammability (solid, gaseous):	Not applicable.
- Ignition temperature:	410 °C (770 °F)
- Decomposition temperature:	Not determined.
- Auto igniting:	Product is not selfigniting.
- Danger of explosion:	Not determined.
- Explosion limits:	
- Lower:	Not determined.
- Upper:	Not determined.
- Vapor pressure at 25 °C (77 °F):	> 0 hPa (> 0 mm Hg)
- Density at 20 °C (68 °F):	~ 0.96 g/cm ³ (~ 8.0112 lbs/gal)
- Relative density	Not determined.
- Vapor density	Not determined.
- Evaporation rate	Not determined.
- Solubility in / Miscibility with	
- Water:	Not miscible or difficult to mix.
- Partition coefficient (n-octanol/water):	Not determined.
- Viscosity:	
- Dynamic at 20 °C (68 °F):	80,000 mPas
- Kinematic:	Not determined.
- Solvent content:	
- Organic solvents:	0.3 %
- VOC content:	0.30 % ~ 2.9 g/l / ~ 0.02 lb/gal
- Solids content:	56.6 %
- 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:** No dangerous decomposition products known.

*11 Toxicological information

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

- LD/LC50 values that are relevant for classification:		
ATE (Acute Toxicity Estimate)		
Oral	LD50	6,893 mg/kg (rat)
Dermal	LD50	19,841 mg/kg (rat)
Inhalative	LC50/4 h	135 mg/l
CAS: 3319-31-1 Trioctyl trimellitate		
Oral	LD50	5,000 mg/kg (rat)
CAS: 131298-44-7 branched C10-alkyl benzoates		
Inhalative	LC50/4 h	11 mg/l (ATE)
CAS: 80-15-9 dimethylbenzyl hydroperoxide		
Oral	LD50	382 mg/kg (rat)
Dermal	LD50	500 mg/kg (rat)
Inhalative	LC50/4 h	220 mg/l (rat)

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CAS: 557-05-1 zinc distearate		
Oral	LD50	10,000 mg/kg (rat)
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:

Harmful

Irritant

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

CAS: 94-36-0	benzoyl peroxyde	3
CAS: 69012-64-2	Silica-Amorphous Silica fume	3
CAS: 98-82-8	cumene	2B
CAS: 112926-00-8	Precipitated silica (Silica-Amorphous)	3
CAS: 128-37-0	Butylated hydroxytoluene	3

- NTP (National Toxicology Program)

CAS: 98-82-8	cumene	R
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- OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information**- Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability** No further relevant information available.

- Behavior in environmental systems:

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- Ecotoxicological effects:

- **Remark:** Very toxic for fish

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

Water hazard class 2 (Self-assessment): hazardous for water
 Do not allow product to reach ground water, water course or sewage system.
 Danger to drinking water if even small quantities leak into the ground.
 Also poisonous for fish and plankton in water bodies.
 Very toxic for aquatic organisms

- Results of PBT and vPvB assessment

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations**- Waste treatment methods**

- **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:

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

14 Transport information**- UN-Number**

- **DOT**

not regulated

- **IMDG, IATA**

UN3082

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<p>- UN proper shipping name</p> <p>- DOT</p> <p>- IMDG</p> <p>- IATA</p>	<p>not regulated</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (< 52% Dibenzoyl Peroxide as a Paste, LIQUID EPOXY RESIN), MARINE POLLUTANT</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (< 52% Dibenzoyl Peroxide as a Paste)</p>
<p>- Transport hazard class(es)</p> <p>- DOT</p> <p>- Class</p>	<p>not regulated</p>
<p>- IMDG, IATA</p> <p></p> <p>- Class</p> <p>- Label</p>	<p>9 Miscellaneous dangerous substances and articles</p> <p>9</p>
<p>- Packing group</p> <p>- DOT</p> <p>- IMDG, IATA</p>	<p>not regulated</p> <p>III</p>
<p>- Environmental hazards:</p> <p>- Marine pollutant:</p> <p>- Special marking (IATA):</p>	<p>Product contains environmentally hazardous substances: < 52% Dibenzoyl Peroxide as a Paste</p> <p>Yes</p> <p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p>
<p>- Special precautions for user</p> <p>- Danger code (Kemler):</p> <p>- EMS Number:</p> <p>- Stowage Category</p>	<p>Warning: Miscellaneous dangerous substances and articles</p> <p>90</p> <p>F-A,S-F</p> <p>A</p>
<p>- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</p>	<p>Not applicable.</p>
<p>- Transport/Additional information:</p> <p>- IMDG</p> <p>- Limited quantities (LQ)</p> <p>- Excepted quantities (EQ)</p>	<p>5L</p> <p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 1000 ml</p>
<p>- UN "Model Regulation":</p>	<p>UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (< 52% DIBENZOYL PEROXIDE AS A PASTE), 9, III</p>

*15 Regulatory information

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

- Section 355 (extremely hazardous substances):

None of the ingredients is listed.

- Section 313 (Specific toxic chemical listings):

CAS: 94-36-0	benzoyl peroxyde
CAS: 80-15-9	dimethylbenzyl hydroperoxide
CAS: 557-05-1	zinc distearate
CAS: 98-82-8	cumene

- TSCA (Toxic Substances Control Act):

Trioctyl trimellitate	ACTIVE
benzoyl peroxyde	ACTIVE
Acrylic Polymer	ACTIVE
branched C10-alkyl benzoates	ACTIVE
Calcium Carbonate	ACTIVE

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Butyl acrylate-methyl methacrylate polymer	ACTIVE
dimethylbenzyl hydroperoxide	ACTIVE
Amorphous Silica	ACTIVE
Silica-Amorphous Silica fume	ACTIVE
zinc distearate	ACTIVE
Bisphenol-A epoxy resin	ACTIVE
cumene	ACTIVE
2-Phenyl-2-propanol	ACTIVE
calcium carbonate	ACTIVE
Butylated hydroxytoluene	ACTIVE
Polymerization inhibitor	ACTIVE

- Hazardous Air Pollutants

CAS: 98-82-8 | cumene

- Proposition 65**- Chemicals known to cause cancer:**

CAS: 98-82-8 | cumene

- 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)**

CAS: 557-05-1 | zinc distearate

D, I, II

CAS: 98-82-8 | cumene

D, CBD

- TLV (Threshold Limit Value established by ACGIH)

CAS: 94-36-0 | benzoyl peroxyde

A4

CAS: 128-37-0 | Butylated hydroxytoluene

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 Affairs**- Contact:** Safety, Health and Environmental Affairs**- Date of preparation / last revision** 05/03/2019 / 21**- Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

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. B: Organic peroxides – Type B

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

Acute Tox. 3: Acute toxicity – Category 3

Acute Tox. 4: Acute toxicity – Category 4

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

Skin Irrit. 2: Skin corrosion/irritation – Category 2

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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.**

- **Disclaimer**

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