



# QuakeBond™ 320LV Injection Resin Part A

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 1: Identification

#### 1.1. Identification

Trade name : QuakeBond™ 320LV Injection Resin Part A  
Product code : 20069

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

QuakeWrap, Inc  
6840 S Tucson Blvd  
Tucson, Arizona 85756

#### 1.4. Emergency telephone number

Emergency number : 800-535-5053 (Infotrac)

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Skin corrosion/irritation Category 2	H315
Serious eye damage/eye irritation Category 2A	H319
Skin sensitization Category 1	H317
Hazardous to the aquatic environment - Acute Hazard Category 2	H401
Hazardous to the aquatic environment - Chronic Hazard Category 2	H411

Full text of H statements : see section 16

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07

GHS09

Signal word (GHS-US) :

Warning

Hazard statements (GHS-US) :

H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H319 - Causes serious eye irritation  
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) :

P261 - Avoid breathing mist/vapors/spray  
P264 - Wash all contact areas thoroughly after handling  
P272 - Contaminated work clothing must not be allowed out of the workplace  
P273 - Avoid release to the environment  
P280 - Wear protective gloves/protective clothing/eye protection  
P302+P352 - If on skin: Wash with plenty of mild soap and 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  
P321 - Specific treatment: See SDS Section 4.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention  
P337+P313 - If eye irritation persists: Get medical advice/attention  
P362+P364 - Take off contaminated clothing and wash it before reuse  
P391 - Collect spillage  
P501 - Dispose of contents/container to special waste facility in accordance with regional/national regulations

\*Specific component identification and/or percentages may be withheld as Trade Secret

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

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### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Bisphenol-A Epoxy Resin	(CAS No) 25068-38-6	>= 50	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Aquatic Acute 3, H402 Aquatic Chronic 2, H411
Alkyl glycidyl ether	(CAS No) 68609-97-2	< 100	Skin Irrit. 2, H315 Skin Sens. 1, H317

\*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of hazard classes and H-statements : see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention.
- First-aid measures after skin contact : Dispose of contaminated leather articles. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash clothing frequently. Keep work clothing separately. Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
- First-aid measures after ingestion : Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

#### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Symptoms may be delayed.
- Symptoms/injuries after inhalation : Not expected to present a respiratory hazard under ambient conditions of normal industrial use due to low vapor pressure. Inhalation of vapors may cause respiratory irritation.
- Symptoms/injuries after skin contact : Causes skin irritation. May cause an allergic skin reaction. May cause sensitization by skin contact. Repeated or prolonged contact may cause injury to skin.
- Symptoms/injuries after eye contact : Causes serious eye irritation. Inflammation/damage of the eye tissue. Swelling and conjunctivitis.
- Symptoms/injuries after ingestion : May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

#### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Irritating and/or toxic gases or fumes likely if involved in fire or exposed to extreme heat.
- Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

#### 5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
- Other information : On burning: release of harmful/irritant gases/vapors.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

- Protective equipment : Gloves. Safety glasses. Protective goggles.
- Emergency procedures : Avoid contact with skin and eyes.

##### 6.1.2. For emergency responders

- Protective equipment : Impermeable boots and protective equipment. Protective gloves. Safety glasses.

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Emergency procedures : Stop leak if safe to do so. Prevent product from entering drains.

### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

For containment : Dike and contain spill. Soak up small spill with inert solids. Sweep or shovel spills into appropriate container for disposal.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Clean contaminated surfaces with a soap solution.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : When heated, material emits irritating fumes.

Precautions for safe handling : Avoid contact with skin and eyes. Wear personal protective equipment. Avoid contact with eyes.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Do not expose to temperatures exceeding 50 °C/ 122 °F. Store in a dry place.

Maximum storage period : 12 months

Storage temperature : 15 - 50 °C

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Bisphenol-A Epoxy Resin (25068-38-6)

Not applicable

#### Alkyl glycidyl ether (68609-97-2)

Not applicable

### 8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Materials for protective clothing : butyl rubber. chloroprene rubber. nitrile rubber.

Hand protection : Protective gloves.

Eye protection : Safety glasses.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.

Thermal hazard protection : Use insulated gloves when handling this material hot.

Environmental exposure controls : Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Colorless to pale yellow liquid.

Color : clear light yellow

Odor : Mild nondescript

Odor threshold : No data available

pH : No data available

Melting point : Not applicable

Freezing point : No data available

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Boiling point	: No data available
Flash point	: > 100 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Specific gravity / density	: 1.13 g/cm <sup>3</sup>
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, dynamic	: No data available

### 9.2. Other information

Minimum ignition energy : <

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Reaction with amines in large amounts or under uncontrolled conditions may produce extreme heat with noxious smoke and fumes.

### 10.4. Conditions to avoid

Overheating.

### 10.5. Incompatible materials

Oxidizing agent.

### 10.6. Hazardous decomposition products

carbon oxides (CO and CO<sub>2</sub>). Residual monomer.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Bisphenol-A Epoxy Resin (25068-38-6)	
LD50 oral rat	> 15000 mg/kg
LD50 dermal rat	23000 mg/kg
Alkyl glycidyl ether (68609-97-2)	
LD50 oral rat	19200 mg/kg
LD50 dermal rabbit	> 4500 mg/kg
ATE US (oral)	19200.000 mg/kg body weight

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified

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Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: Not expected to present a respiratory hazard under ambient conditions of normal industrial use due to low vapor pressure. Inhalation of vapors may cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation. May cause an allergic skin reaction. May cause sensitization by skin contact. Repeated or prolonged contact may cause injury to skin.
Symptoms/injuries after eye contact	: Causes serious eye irritation. Inflammation/damage of the eye tissue. Swelling and conjunctivitis.
Symptoms/injuries after ingestion	: May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.

Bisphenol-A Epoxy Resin (25068-38-6)	
LC50 fish 1	2 mg/l (96 h; Oncorhynchus mykiss; Lethal)
EC50 Daphnia 1	2.8 mg/l (48 h; Daphnia magna; Locomotor effect)
LC50 fish 2	2.3 mg/l (96 h; Oncorhynchus mykiss; Nominal concentration)
EC50 Daphnia 2	1.8 mg/l (48 h; Daphnia magna)
ErC50 (algae)	11 mg/l Scenedesmus Growth rate inhibition carpiconrutum (fresh water algae)
NOEC (chronic)	0.3 mg/l Daphnia Magna, Fresh water 21 days (OECD 211 equivalent)
NOEC chronic fish	0.351 ng/l Pimephales promela, Fresh water, 32 days
NOEC chronic crustacea	0.32 ng/l Daphnia Magna, Fresh water semi-static, 21 days

Alkyl glycidyl ether (68609-97-2)	
EC50 Daphnia 1	10 mg/l

### 12.2. Persistence and degradability

Bisphenol-A Epoxy Resin (25068-38-6)	
Persistence and degradability	not readily degradable in water.

### 12.3. Bioaccumulative potential

Bisphenol-A Epoxy Resin (25068-38-6)	
BCF fish 1	3 - 31 QSAR
Log Pow	3.242 estimated
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

### 12.4. Mobility in soil

Bisphenol-A Epoxy Resin (25068-38-6)	
Surface tension	0.0 587-0.0589, 20 °C

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Landfilling of free liquid not recommended. Fuels burning or incineration preferred for material disposed of in "as sold" condition if regulations permit.
Sewage disposal recommendations	: Do not discharge into drains or the environment.
Waste disposal recommendations	: Collect all waste in suitable and labeled containers and dispose according to local legislation.
Additional information	: Industrial waste. Landfilling of free liquid not recommended. Fuels burning or incineration preferred for material disposed of in "as sold" condition if regulations permit.

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### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport by road and rail in non-bulk quantities

#### TDG

No additional information available

#### Transport by sea

UN-No. (IMDG)	: 3082
Proper Shipping Name (IMDG)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol-A Epoxy Resin)
Class (IMDG)	: 9 - Miscellaneous dangerous substances and articles
Packing group (IMDG)	: III - substances presenting low danger

#### Air transport

UN-No. (IATA)	: 3082
Proper Shipping Name (IATA)	: Environmentally hazardous substance, liquid, n.o.s. (Bisphenol-A Epoxy Resin)
Class (IATA)	: 9 - Miscellaneous Dangerous Goods
Packing group (IATA)	: III - Minor Danger

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

<b>QuakeBond™ 320LV Injection Resin Part A (none)</b>	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
<b>Bisphenol-A Epoxy Resin (25068-38-6)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e., Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C))
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
<b>Alkyl glycidyl ether (68609-97-2)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

#### 15.2. International regulations

##### CANADA

<b>QuakeBond™ 320LV Injection Resin Part A (none)</b>	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects

#### EU-Regulations

No additional information available

#### National regulations

<b>efi Polymers Epoxy Resin 20069 / Quakewrap 320LV Injection Resin Part A (none)</b>	
All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory	

#### 15.3. US State regulations

No additional information available

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### SECTION 16: Other information

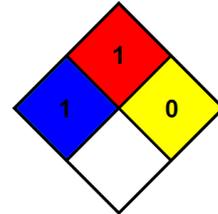
Abbreviations and acronyms : N.A. - Not Applicable  
N.E. - Not Established  
N.D. - Not Determined  
ACGIH = American Conference of Governmental Industrial Hygienists  
OSHA = US Occupational Health and Safety Administration  
TLV-TWA = Threshold Limit Value-Time Weighted Average (8 hrs)  
STEL = Short-Term Exposure Limit (15 min)  
C = Ceiling Value  
PEL = Permissible Exposure Limit  
OEL = Occupational Exposure Limit  
IDLH = Immediately Dangerous to Life and Health  
ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
PNEC = Predicted No Effect Concentration  
LOAEL = Lowest Observed Adverse Effect Level  
NOAEL = No Observed Adverse Effect Level  
NOAEC = No Observed Adverse Effect Concentration.

Other information : **DISCLAIMER:** To the best of our knowledge, the information contained in this MSDS is accurate or is obtained from sources believed to be accurate. However, no liability, expressed or implied, is assumed for the accuracy or completeness of the information contained herein. Buyer assumes liability in its use of the material.

Full text of H-phrases:

H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.  
NFPA fire hazard : 1 - Must be preheated before ignition can occur.  
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating  
Health : 2 Moderate Hazard - Temporary or minor injury may occur  
Flammability : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)  
Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.  
Personal protection : C - Safety glasses, Gloves, Synthetic apron

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*