



# QuakeBond™ 401HCAR High Chemical Resistance Epoxy Coating, Part B Hardener

## Safety Data Sheet

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

### SECTION 1: Chemical Product and Company Identification

#### 1.1. Identification

Chemical Family : Epoxy 401HCAR Hardener  
Product name : QuakeBond 401HCAR High Chemical Resistance Epoxy Coating Part B

#### 1.2. Recommended use and restrictions on use

Recommended use : Coatings and paints, thinners, paint removers

#### 1.3. Supplier

Supplier's Name : QuakeWrap, Inc  
6840 S Tucson Blvd  
Tucson, Arizona 85712 - USA  
T 520.791.7000 - F 520.791.0600  
[Office@quakewrap.com](mailto:Office@quakewrap.com) – [www.quakewrap.com](http://www.quakewrap.com)

#### 1.4. Emergency telephone number

Emergency Number : Infotrac 800-535-5053

### SECTION 2: Hazard(s) identification

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

##### GHS-US classification

Serious eye damage/eye irritation Category 1 H318  
Skin sensitization, Category 1 H317

#### 2.2. GHS Label Elements, Including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US)



GHS05



GHS07

Signal word (GHS US) : Danger  
Hazard statements (GHS US) : H317 - May cause an allergic skin reaction  
H318 - Causes serious eye damage  
Precautionary statements (GHS US) : P261 - Avoid breathing mist/vapors/spray.  
P272 - Contaminated work clothing must not be allowed out of the workplace.  
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.  
P310 - Immediately call a POISON CENTER or doctor/physician.  
P321 - Specific treatment: See SDS Section 4.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P363 - Wash contaminated clothing before reuse.  
P501 - Dispose of contents/container to special waste facility in accordance with regional/national regulations.

#### 2.3. Other hazards which do not result in classification

No additional information available

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

Not applicable

### SECTION 3: Composition, Information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures



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Name	Product Identifier	Conc (% w/w)	GHS-US classification
Benzyl Alcohol	(CAS-No.) 100-51-6	30 - 60	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation: vapor), H332 Eye Irrit. 2A, H319
Amine compound	(CAS-No.) TRADE SECRET	30 - 60	Flam. Liq. 4, H227 Skin Corr. 1C, H314 Eye Dam. 1, H318
Aliphatic polyamine blend	(CAS-No.) UNKNOWN	10 - 30	Skin Corr. 1C, H314 Eye Dam. 1, H318 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 general : IF exposed or concerned: Get medical advice/attention. Call a poison center/doctor/physician if you feel unwell.
- 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 separate.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

#### 4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects : Symptoms may be delayed.
- Symptoms/effects after inhalation : Not expected to present a respiratory hazard under ambient conditions of normal industrial use due to low vapor pressure. Vapors from heated material may cause mild respiratory irritation with dryness and cough.
- Symptoms/effects after skin contact : Redness. May cause moderate irritation. Swelling.
- Symptoms/effects after eye contact : Causes serious eye irritation. Swelling and conjunctivitis. Lacrimation.
- Symptoms/effects after ingestion : Abdominal pain. Cramps/uncontrolled muscular contractions. Nausea. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.
- Symptoms/effects : Symptoms may be delayed.

#### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

### SECTION 5: Fire fighting measures

#### 5.1 Suitable (and unsuitable) extinguishing media

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

#### 5.2. Specific hazards arising from the chemical

- 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. Special protective equipment and precautions for fire-fighters

- 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 : Combustion produces toxic gases.



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### SECTION 6: Accidental release measures

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

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

- Protective equipment : Boots, gloves, goggles.
- Emergency procedures : Do not breathe mist/vapors/spray. Avoid contact with skin and eyes.

##### 6.1.2. For emergency responders

- Protective equipment : Impermeable boots and protective equipment. Protective gloves.
- Emergency procedures : Stop leak if safe to do so. Ventilate area. Evacuate and limit access.

#### 6.2. Environmental precautions

Avoid release to the environment.

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

- For containment : Dike and contain spill.
- Methods for cleaning up : Notify authorities if product enters sewers or public waters.
- 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 : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist/vapors/spray. Avoid contact with skin and eyes. Wear personal protective equipment. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
- Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. 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 : Store locked up. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store in a dry place.
- Maximum storage period : 12 months
- Storage temperature : 25 - 50 °C

### SECTION 8: Exposure Controls, Personal Protection

#### 8.1. Control parameters

Benzyl Alcohol (100-51-6)		
AIHA	WEEL TWA (mg/m³)	44.2 mg/m³
AIHA	WEEL TWA (ppm)	10 ppm
Amine compound (TRADE SECRET)		
Not applicable		
Aliphatic polyamine blend (UNKNOWN)		
Not applicable		

#### 8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Personal protective equipment : Gloves. In case of insufficient ventilation or if heated, wear suitable respiratory equipment. Chemical goggles or safety glasses. Chemical goggles.
- Materials for protective clothing : butyl rubber. Nitrile rubber.
- Hand protection : Protective gloves.
- Eye protection : Safety goggles
- Skin and body protection : Wear suitable protective clothing.



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Respiratory protection	: Wear respiratory protection.
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	: Clear, colorless liquid.
Color	: amber
Odor	: Acrid Ammoniacal
Odor threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: > 200 °C
Flash point	: > 95 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: < 15 mm Hg 21 C
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Specific gravity / density	: 1.04 g/cm <sup>3</sup>
Solubility	: Poorly soluble in water.
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 200 cP
Explosion limits	: No data available
Explosive properties	: No data available

#### 9.2 Other information

No additional information available

### 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

N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations. . Reaction with epoxy resins or isocyanates in very large amounts or under uncontrolled conditions may produce extreme heat with noxious smoke and fumes.

#### 10.4. Conditions to avoid

No additional information available

#### 10.5. Incompatible materials

Oxidizing agent.

#### 10.6. Hazardous decomposition products

Hazardous decomposition products may be released during prolonged heating like smoke, carbon monoxide and dioxide, nitrogen oxides (NOx).



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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified  
 Acute toxicity (dermal) : Not classified  
 Acute toxicity (inhalation) : Not classified

Benzyl Alcohol (100-51-6)	
LD50 oral rat	1620 mg/kg
LD50 dermal rabbit	2800 mg/kg
LC50 inhalation rat (mg/l)	> 4.2 mg/l/4h
ATE US (oral)	1620 mg/kg body weight
ATE US (dermal)	2800 mg/kg body weight
ATE US (vapors)	8.8 mg/l/4h

Amine compound (TRADE SECRET)	
LD50 oral rat	2300 mg/kg
LC50 inhalation rat (mg/l)	> 4.5 mg/l/4h (Rat)
ATE US (oral)	2300 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  
 Specific target organ toxicity – single exposure : Not classified  
 Specific target organ toxicity – repeated exposure : Not classified

Benzyl Alcohol (100-51-6)	
NOAEL (oral,rat,90 days)	400 mg/kg bodyweight/day 103 weeks - 5days/wk
NOAEC (inhalation,rat,dust/mist/fume,90 days)	1072 mg/l/6h/day 4 weeks

Aspiration hazard : Not classified  
 Symptoms/effects after inhalation : Not expected to present a respiratory hazard under ambient conditions of normal industrial use due to low vapor pressure. Vapors from heated material may cause mild respiratory irritation with dryness and cough.  
 Symptoms/effects after skin contact : Redness. May cause moderate irritation. Swelling.  
 Symptoms/effects after eye contact : Causes serious eye irritation. Swelling and conjunctivitis. Lacrimation.  
 Symptoms/effects after ingestion : Abdominal pain. Cramps/uncontrolled muscular contractions. Nausea. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : Before neutralization, the product may represent a danger to aquatic organisms.

Benzyl Alcohol (100-51-6)	
LC50 fish 1	460 mg/l 96 HR, Pimephales promelas (Flathead minnow)
EC50 Daphnia 1	230 mg/l OECD 202
EC50 other aquatic organisms 1	390 mg/l Bacteria, 24 hrs ISO 8192
LC50 fish 2	10 mg/l 96h, Lepomis macrochirus (Bluegill sunfish)
ErC50 (algae)	700 mg/l 72h
NOEC (chronic)	310 mg/l OECD 201 Algae



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### 12.2. Persistence and degradability

Benzyl Alcohol (100-51-6)	
Persistence and degradability	Readily biodegradable, according to appropriate OECD test.
Amine compound (TRADE SECRET)	
Persistence and degradability	Biodegradability in water: no data available.

### 12.3. Bioaccumulative potential

Amine compound (TRADE SECRET)	
Log Pow	0.09 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal 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.
- Product/Packaging disposal recommendations : Collect all waste in suitable and labeled containers and dispose according to local legislation.
- Additional information : Material in "as sold" condition is not regulated as a hazardous waste under federal RCRA regulations.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Not regulated

### Transport by sea

Not applicable

### Air transport

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal Regulations

QuakeBond 401HCAR High Impact Epoxy Hardener (MIX)	
SARA Section 311/312	regulated
Benzyl Alcohol (100-51-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Amine compound (TRADE SECRET)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Aliphatic polyamine blend (UNKNOWN)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	



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### 15.2. International Regulations

#### CANADA

##### Benzyl Alcohol (100-51-6)

Listed on the Canadian DSL (Domestic Substances List)

##### Amine compound (TRADE SECRET)

Listed on the Canadian DSL (Domestic Substances List)

#### EU-Regulations

##### QuakeBond 401HCAR High Impact Epoxy Hardener (MIX)

RoHS Substance	No
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SVHC	No
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##### Benzyl Alcohol (100-51-6)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)- Directive 79/831/EEC, sixth Amendment of Directive 67/548/EEC (dangerous substances)

SVHC	No
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RoHS Substance	No
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##### Amine compound (TRADE SECRET)

SVHC	No
------	----

RoHS Substance	No
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##### Aliphatic polyamine blend (UNKNOWN)

SVHC	No
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RoHS Substance	No
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#### National regulations

##### QuakeBond 401HCAR High Impact Epoxy Hardener (MIX)

All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory

##### Benzyl Alcohol (100-51-6)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on KECI (Korean Existing Chemicals Inventory)

##### Amine compound (TRADE SECRET)

Listed on the AICS (Australian Inventory of Chemical Substances)

### 15.3. US State regulations

No additional information available

## SECTION 16: Other Information

#### National and international Regulations

Revision date : 11/11/2019

Other information : **DISCLAIMER:** To the best of our knowledge, the information contained in this SDS 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.

#### Abbreviations and acronyms:



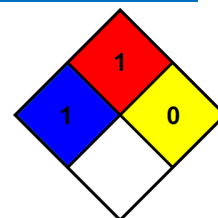
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N.A. - Not Applicable  
 N.E. - Not Established  
 N.D. - Not Determined  
 ACGIH = American Conference of Governmental Industrial Hygienists  
 OSHA = US Occupational Health and Safety Administration  
 TLV-TWA = Threshold Limit Value-Time Weighted 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

- NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.
- NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.
- NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.
- Hazard 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  
 C - Safety glasses, Gloves, Synthetic apron



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