



CEMENT & CONCRETE PRODUCTS™

F6 – FastSet™ Concrete Crack Repair

SAFETY DATA SHEET

(Complies with OSHA 29 CFR 1910.1200)

SECTION I: PRODUCT IDENTIFICATION

The QUIKRETE® Companies
5 Concourse Parkway, Suite 1900
Atlanta, GA 30328

Emergency Telephone Number
INFOTRAC (800) 535-5053
Information Telephone Number
(800) 282-5828

SDS F6A

Revision: Jul-19

QUIKRETE® Product Name**Item #(s)**

FASTSET™ CONCRETE CRACK REPAIR

8650-69 (Part A)

Product Use: Low viscosity repair material for horizontal surfacesSee most current revision of this document at www.QUIKRETE.com.

SECTION II - HAZARD IDENTIFICATION

Hazard Statements

Skin Irritation - Category 2

Eye Irritation - Category 2A

Respiratory Sensitization - Category 1

Skin Sensitization - Category 1

Carcinogen – Category 2

STOT SE - Category 3 - Respiratory

STOT RE - Category 2 – Respiratory

Pictograms

SDS F6A

QUIKRETE Companies, LLC
7/22/2019



CEMENT & CONCRETE PRODUCTS™

GHS Label elements, including precautionary statements**Signal word** Danger**Hazard statement(s)**

Causes skin irritation.
 Causes serious eye irritation.
 May cause allergy or asthma symptoms.
 May cause allergic skin reaction.
 Suspected of causing cancer.
 May cause respiratory irritation.
 May cause damage to respiratory system through prolonged or repeated inhalation.

Do not handle until all safety precautions have been read and understood.
 Do not breathe fumes.
 Wash skin thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Wear impervious gloves, such as nitrile. Wear eye protection, and protective clothing.
 In case of inadequate ventilation wear respiratory protection.

If swallowed: Rinse mouth. Do NOT induce vomiting.
 If inhaled: Remove person to fresh air and keep comfortable for breathing.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If on skin (or hair): Remove immediately all contaminated clothing and wash before re-use.
 Rinse skin or hair with water.
 If significant skin irritation or rash occurs: get medical advice or attention.

Immediately seek medical advice or attention if symptoms are significant or persist.

Store in a well-ventilated place. Keep container tightly closed.
 Dispose of contents/containers in accordance with all regulations.

SECTION III - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

<u>Chemical Name</u>	<u>Content %</u>	<u>CAS Number</u>
Isocyanic acid, polymethenepolyphenylene ester	25-50	9016-87-9
1-Isopropyl-e,e-dimethyltrimethylene diisobutyrate	25-50	6846-50-0
4,4'-Methylenediphenyl Diisocyanate	25-30	101-68-8

SDS F6A

 QUIKRETE Companies, LLC
 7/22/2019

**CEMENT & CONCRETE PRODUCTS™**

Any concentration shown as a range is to protect confidentiality or is due to batch variation. There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

SECTION IV – FIRST AID MEASURES

Precautions: First aid providers should avoid direct contact with this chemical. Wear protective equipment as necessary.

Inhalation:

Move to an area free from risk of further exposure. Obtain medical attention. Administer oxygen or artificial respiration as needed. Asthmatic-type symptoms may develop and may be immediate or delayed up to several hours. Extreme asthmatic reactions can be life threatening.

Eyes:

Flush with plenty of water, preferably lukewarm for at least 15 minutes, holding eyelids open all the time. Get medical attention.

Skin:

Remove contaminated clothing. Wash affected skin thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse. For severe exposures, get under safety shower and begin rinsing. Seek medical attention if irritation develops or persists after the area is washed.

Ingestion:

DO NOT INDUCE VOMITING. Wash mouth out with water. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Consult physician.

Note to Physician:

EYES- Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid as needed. Workplace vapors could produce reversible corneal epithelial edema impairing vision. SKIN-This compound is a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burns. INGESTION- Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of this compound. RESPIRATORY- Treatment is essentially symptomatic. An individual having a dermal or pulmonary sensitization reaction to this material should be removed from exposure to any diisocyanate.

SECTION V - FIRE FIGHTING MEASURES

Flash Point: 198.8°C (390°F)

SDS F6A

QUIKRETE Companies, LLC
7/22/2019

**CEMENT & CONCRETE PRODUCTS™****Flammable Limits:** N/A**Extinguisher Media:**Dry Chemical, CO₂, chemical foam, water spray**Special Instructions:**

Firefighters should wear NFPA compliant structural firefighting protective equipment, including self-contained breathing apparatus and NFPA compliant helmet, hood, boots and gloves. Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse. During a fire, isocyanate vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. Exposure to heated diisocyanate can be extremely dangerous.

Unusual Hazards:

Closed container may forcibly rupture under extreme heat or when contents are contaminated with water (CO₂ formed). Use cold-water spray to cool fire-exposed containers to minimize the risk of rupture. Large fires can be extinguished with large volumes of water applied from a safe distance, since reaction between water and hot diisocyanate can be vigorous.

SECTION VI – ACCIDENTAL RELEASE MEASURES

Evacuate non-emergency personnel. Isolate the area and prevent access. Remove ignition sources. Notify management. Put on protective equipment. Control source of the leak. Ventilate area. Contain the spill to prevent spread into drains, sewers, water supplies, or soil. Major spill or leak (Standing liquid); released material may be pumped into closed, but not sealed, metal container for disposal. Process can generate heat. Minor spill or leak (Wet surface): cover spill area with suitable absorbent material (Kitty Litter Oil Dry). Saturate absorbent material with neutralization solution and mix. Wait 15 minutes. Collect material in open-head metal containers. Repeat application of decontamination solution, with scrubbing, followed by absorbent until the surface is decontaminated. Check for residual surface contamination. Swype® test kits have been used for this purpose. Apply lid loosely and allow containers to vent for 72 hours to let carbon dioxide (CO₂) escape. Decontamination: mixture of water (80%) with non-ionic surfactant Tergitol® TMN-10 (20%), or; water (90%), concentrated ammonia (3-8%) and detergent (2%). Notify CHEM-TEL (1.800.255.3924) for releases of this product during the course of distribution.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND STORAGE

Storage Temperature: 64 °F (18 °C) / 86 °F (30 °C)**Handling and Storage Precautions:**

SDS F6A

QUIKRETE Companies, LLC
7/22/2019


CEMENT & CONCRETE PRODUCTS™

Do not breathe vapors, mists, or dusts. Use adequate ventilation to keep airborne isocyanate levels below the exposure limits. Wear respiratory protection if material is heated sprayed, used in a confined space, or if the exposure limit is exceeded. Warning properties (irritation of the eyes, nose and throat or odor) are not adequate to prevent chronic overexposure from inhalation. This material can produce asthmatic sensitization upon either single inhalation exposure to a relatively high concentration or upon repeated inhalation exposures to lower concentrations. Employees with lung or breathing problems or prior allergic reactions to isocyanates must not be exposed to vapor or spray mist. Avoid contact with skin and eyes. Wear appropriate eye and skin protection. Wash thoroughly after handling. Do not breathe smoke and gases created by overheating or burning this material. Decomposition products can be highly toxic and irritating. Store in tightly closed containers to prevent moisture contamination. Do not seal if contamination is suspected. Employee education and training in the safe use and handling of this compound are required under the OSHA Hazard Communication Standard 29 CFR 1910.1200

SECTION VIII – EXPOSURE CONTROL MEASURES / PERSONAL PROTECTION

United States Occupational Exposure Limits

Isocyanic acid, polymethylenepolyphenylene ester
 1-Isopropyl-2,2-dimethyltrimethylene diisobutyrate
 4,4'-Methylenediphenyl Diisocyanate

None.

None.

ACGIH TLV (United States, 3/2016).

TWA: 0.005 ppm 8 hours.

NIOSH REL (United States, 10/2013).

TWA: 0.05 mg/m³ 10 hours.

TWA: 0.005 ppm 10 hours.

CEIL: 0.2 mg/m³ 10 minutes.

CEIL: 0.02 ppm 10 minutes.

OSHA PEL (United States, 6/2016).

CEIL: 0.02 ppm

CEIL: 0.2 mg/m³

Canada Occupational Exposure Limits

Isocyanic acid, polymethylenepolyphenylene ester

CA Alberta Provincial (Canada, 4/2009).

8 hrs OEL: 0.07 mg/m³ 8 hours.

8 hrs OEL: 0.005 ppm 8 hours.

CA British Columbia Provincial (Canada, 7/2016).

TWA: 0.005 ppm 8 hours.

C: 0.01 ppm

CA Ontario Provincial (Canada, 7/2015).



CEMENT & CONCRETE PRODUCTS™

4,4'-Methylenediphenyl Diisocyanate

C: 0.02 ppm

TWA: 0.005 ppm 8 hours.

CA Alberta Provincial (Canada, 4/2009).

8 hrs OEL: 0.005 ppm 8 hours.

8 hrs OEL: 0.05 mg/m³ 8 hours.**CA British Columbia Provincial (Canada, 7/2016). Absorbed through skin. Skin sensitizer.**

TWA: 0.005 ppm 8 hours.

C: 0.01 ppm

CA Quebec Provincial (Canada, 1/2014). Skin sensitizer.

TWA EV: 0.005 ppm 8 hours.

TWA EV: 0.051 mg/m³ 8 hours.**CA Ontario Provincial (Canada, 7/2015).**

TWA: 0.005 ppm 8 hours.

CA Saskatchewan Provincial (Canada, 7/2013).

STEL: 0.015 ppm 15 minutes.

TWA: 0.005 ppm 8 hours.

Eye Protection:

When directly handling liquid product, eye protection is required. Examples of eye protection include a chemical safety goggle, or chemical safety goggle in combination with a full face shield when there is a greater risk of splash.

Skin/Body Protection:

Avoid all skin contact. Depending on the conditions of use, cover as much of the exposed skin area as possible with appropriate clothing to prevent skin contact. Gloves should be worn. Nitrile rubber showed excellent resistance. Butyl rubber, neoprene and PVC are also effective.

Ventilation:

Local exhaust should be used to maintain levels below the TLV whenever MDI is heated, sprayed or aerosolized. Standard reference sources regarding industrial ventilation (i.e., ACGIH Industrial Ventilation) should be consulted for guidance about adequate ventilation. To ensure that published limits have not been exceeded, monitoring for airborne diisocyanate should become part of the overall employee exposure characterization program.

Respirator Requirements:

SDS F6A

QUIKRETE Companies, LLC
7/22/2019

CEMENT & CONCRETE PRODUCTS™

Airborne MDI concentrations greater than the ACGIH TLV-TWA (TLV) or OSHA PEL-C (PEL) can occur in inadequately ventilated environments when MDI is sprayed, aerosolized, or heated. In such cases, respiratory protection must be worn. The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134). The type of respiratory protection available includes (1) an atmosphere-supplying respirator such as a self-contained breathing apparatus (SCBA) or a supplied air respirator (SAR) in the positive pressure or continuous flow mode, or (2) an air-purifying respirator (APR). If an APR is selected then (a) the cartridge must be equipped with an end-of-service life indicator (ESLI) certified by NIOSH, or (b) a change out schedule based on information or data that will ensure that the cartridges are changed out before the end of their service life, must be developed and implemented. The basis for the change out schedule must be described in a written respirator program. Further, if an APR is selected, the airborne diisocyanate concentration must be no greater than 10 times the TLV or PEL. The recommended APR cartridge is an organic vapor/particulate filter combination cartridge (OV/P100).

Medical Surveillance:

All applicants who are assigned to an isocyanate work area should undergo a pre-placement medical evaluation. A history of eczema or respiratory allergies such as hay fever, are possible reasons for medical exclusion from isocyanate areas. Applicants who have a history of adult asthma should be restricted from work with isocyanates. Applicants with a history of prior isocyanate sensitization should be excluded from further work with isocyanates. A comprehensive annual medical surveillance program should be instituted for all employees who are potentially exposed to diisocyanates. Once a worker has been diagnosed as sensitized to any isocyanate, no further exposure can be permitted.

SECTION IX - PHYSICAL/CHEMICAL CHARACTERISTICS

These data do not represent technical or sales specifications.

Physical State:	Liquid
Color:	Dark Brown to Black
Odor:	Slight musty odor
Solubility in Water:	Insoluble- Reacts slowly with water to liberate CO ₂ gas
Specific Gravity:	1.24 @ 77 °F (25 °C)
Vapor Pressure:	<0.0001 mm Hg @ 77 °F (25 °C)
VOC Content:	See section 9 of part B for VOC content
Freezing Point:	<32 °F (<0 °C) for the active ingredient
Boiling Point:	406°F (208°C)
Flash Point:	390 °F (198.89 °C) (Pensky-Martens Closed-Cup (ASTM D-93))



CEMENT & CONCRETE PRODUCTS™

SECTION X – STABILITY AND REACTIVITY

Hazardous Reactions:

Contact with moisture, other materials that react with isocyanates, or temperatures above 350 °F (177 °C), may cause polymerization.

Material to Avoid:

Water, amines, strong bases, alcohols, copper alloys, aluminum.

Decomposition Product:

By high heat and fire: carbon monoxide, oxides of nitrogen, hydrogen cyanide, carbon dioxide, dense black smoke, isocyanate, isocyanic acid, other undetermined compounds.

SECTION XI – TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Isocyanic acid,	LD50 Dermal	Rabbit	>9400 mg/kg	-
polymethylenepolyphenylene ester	LD50 Oral	Rat	49 g/kg	-
4,4'-Methylenediphenyl Diisocyanate	LD50 Oral	Rat	9200 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure
Isocyanic acid,	Eyes - Mild irritant	Rabbit	-	100 mg -
polymethylenepolyphenylene ester	Skin - Mild irritant	Guinea pig	-	5 g
1-Isopropyl-2,2-dimethyltrimethylene diisobutryate	Skin - Mild irritant	Human	-	504 hours 1% Intermittent
4,4'-Methylenediphenyl Diisocyanate	Eyes - Moderate irritant	Rabbit	-	100 mg

Sensitization

There is no data available

Mutagenicity

There is no data available

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP
Isocyanic acid,	-	3	-
polymethylenepolyphenylene ester	-	3	-
4,4'-Methylenediphenyl Diisocyanate	-	3	-

Potential immediate effects : No known significant effects or critical hazards.

SDS F6A

QUIKRETE Companies, LLC
7/22/2019



CEMENT & CONCRETE PRODUCTS™

Potential delayed effects: No known significant effects or critical hazards.

Long term exposure

Potential immediate effects: No known significant effects or critical hazards.

Potential delayed effects: No known significant effects or critical hazards.

Potential chronic health effects: May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

General :

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Inhalation (vapors)	26.8 mg/L
Inhalation (dusts and mists)	5.395 mg/L

SECTION XII – ECOLOGICAL INFORMATION

Toxicity

There is no data available

Persistence and degradability

There is no data available

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
1-Isopropyl-2,2-dimethyltrimethylene diisobutyrate	-	5340	high
4,4'-Methylenediphenyl Diisocyanate	4.51	200	low


**CEMENT & CONCRETE PRODUCTS™****Mobility in soil**

There is no data available

Soil/water partition**coefficient (K_{oc})** : Not available.**SECTION XIII – DISPOSAL CONSIDERATIONS**

If the material as supplied becomes a waste, dispose in accordance with federal, state and local regulations.

SECTION XIV – TRANSPORT INFORMATION

	DOT Classification	TDG Classification	IMDG	IATA
UN number	UN3082	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4,4'-Methylenediphenyl Diisocyanate) RQ (4,4'-Methylenediphenyl Diisocyanate)	-	-	-
Transport hazard class(es)	9 	-	-	-
Packing group	III	-	-	-
Environmental hazards	No.	No.	No.	No.

AERG : 171

DOT-RQ Details : 4,4'-Methylenediphenyl Diisocyanate 5000 lbs / 2270 kg

Additional information

DOT Classification : **Reportable quantity** 17507 lbs / 7948.2 kg [1693.3 gal / 6409.8 L]. The classification of the product is due solely to the presence of one or more US DOT-listed 'Hazardous substances' that are subject to reportable quantity requirements and only applies to shipments of packages greater than, or equal to, the product reportable quantity. Package sizes less than the product reportable quantity are not regulated as hazardous materials.

Special precautions for user **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SDS F6A

QUIKRETE Companies, LLC
7/22/2019



CEMENT & CONCRETE PRODUCTS™

SECTION XV – OTHER REGULATORY INFORMATION

U.S. Federal regulations

TSCA 8(a) PAIR: 4,4'-Methylenediphenyl Diisocyanate

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

(TSCA 8(b): All components are listed or exempted

TSCA 8(c) calls for record of SAR: Isocyanic acid, polymethylenepolyphenylene ester;

Clean Water Act (CWA) 307: 4,4'-Methylenediphenyl Diisocyanate

Clean Air Act Section 112: Listed

(b) Hazardous Air

Pollutants (HAPs)

Clean Air Act Section 602

Class I Substances: Not listed

Clean Air Act Section 602

Class II Substances : Not listed

DEA List I Chemicals

(Precursor Chemicals) : Not listed

DEA List II Chemicals

(Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients: No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Immediate (acute) health hazard

Delayed (chronic) health hazard

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Isocyanic acid, polymethylenepolyphenylene ester	No.	No.	No.	Yes.	Yes.
4,4'-Methylenediphenyl Diisocyanate	No.	No.	No.	Yes.	Yes.

SARA 313

Form R - Reporting requirements

Product name

Isocyanic acid, polymethylenepolyphenylene ester

4,4'-Methylenediphenyl Diisocyanate

CAS number

9016-87-9

101-68-8

Supplier notification

Isocyanic acid, polymethylenepolyphenylene ester

4,4'-Methylenediphenyl Diisocyanate

9016-87-9

101-68-8

SDS F6A

QUIKRETE Companies, LLC

7/22/2019


CEMENT & CONCRETE PRODUCTS™

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts: The following components are listed: 4,4'-Methylenediphenyl Diisocyanate

New York : The following components are listed: 4,4'-Methylenediphenyl Diisocyanate

New Jersey : The following components are listed: Isocyanic acid, polymethylenepolyphenylene ester;
4,4'-Methylenediphenyl Diisocyanate

Pennsylvania : The following components are listed: 4,4'-Methylenediphenyl Diisocyanate

4,4'-Methylenediphenyl Diisocyanate

California (Prop-65): No products were found.

Canadian lists

Canadian NPRI The following components are listed: Isocyanic acid, polymethylenepolyphenylene ester;
4,4'-Methylenediphenyl Diisocyanate

CEPA Toxic Substances : None of the components are listed.

Canada inventory : All components are listed or exempted.

SECTION XVI – OTHER INFORMATION

Last Updated: July 22, 2019

MANUFACTURER DISCLAIMER: This SDS to the best of our knowledge conforms to the requirements of OSHA 29 CFR 1910.1200, 91/155/EEC and summarizes the health and safety hazard information and general guidance on how to safely handle the material at the date of issue. Each user must review the SDS in the context of how the product will be handled and used in the workplace. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. Responsibility for the product sold is subject to our standard terms and conditions, a copy of which is available upon request. This company warrants only that its products meet the specifications stated in the sales contract. Typical properties, where stated, are to be considered as representative of current production and should not be treated as specifications. While all the information presented in this document is believed to be reliable and to represent the best available data on these products, NO GUARANTEE, WARRANTY, OR REPRESENTATION IS MADE, INTENDED, OR IMPLIED AS TO THE CORRECTNESS, OR SUFFICIENCY OF ANY INFORMATION, OR AS TO THE MERCHANTABILITY OR SUITABILITY OR FITNESS OF ANY CHEMICAL COMPOUNDS OR OTHER PRODUCTS FOR ANY PARTICULAR USE OR PURPOSE, OR THAT ANY CHEMICAL COMPOUNDS OR OTHER PRODUCTS OR THE USE THEREOF ARE NOT SUBJECT TO A CLAIM BY A THIRD PARTY FOR INFRINGEMENT OF ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHT. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. Liability by this company for all claims, whether arising out of breach of warranty,

SDS F6A

QUIKRETE Companies, LLC

7/22/2019

**CEMENT & CONCRETE PRODUCTS™**

negligence, strict liability, or otherwise, is limited to the purchase price of the material. Products may be toxic and require special precautions in handling. For all products listed, the user should obtain detailed information on toxicity, together with the proper shipping, handling and storage procedures, and comply with all applicable safety and environmental standards. Toxicity and risk characteristics of chemical compounds and other products may differ when used with other materials or in a manufacturing or other process. Those risk characteristics should be determined by the user and made known to handlers, processors, and end users.

End of SDS



CEMENT & CONCRETE PRODUCTS™

F6 – FastSet™ Concrete Crack Repair

SAFETY DATA SHEET

(Complies with OSHA 29 CFR 1910.1200)

SECTION I: PRODUCT IDENTIFICATION

The QUIKRETE® Companies
5 Concourse Parkway, Suite 1900
Atlanta, GA 30328

Emergency Telephone Number
INFOTRAC (800) 535-5053
Information Telephone Number
(800) 282-5828

SDS F6B
Revision: Jul-19

QUIKRETE® Product Name	Item #(s)
FASTSET™ CONCRETE CRACK REPAIR	8650-69 (Part B)

Product Use: Low viscosity repair material for horizontal surfaces

See most current revision of this document at www.QUIKRETE.com.

SECTION II - HAZARD IDENTIFICATION

Hazard Statements

AQUATIC HAZARD – CATEGORY 3

Pictograms None

GHS Label elements, including precautionary statements

Signal word Warning

Hazard statement(s)

Harmful to aquatic life with long lasting effects.

Precautionary Statement(s)

Avoid release to the environment.

Storage

Store in a well ventilated place. Keep container tightly closed to protect product utility.

Disposal

SDS F6B

QUIKRETE Companies, LLC
7/22/2019

**CEMENT & CONCRETE PRODUCTS™**

Dispose of contents/container to appropriately licensed chemical waste/drum reclamation facilities.

SECTION III - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

<u>Chemical Name</u>	<u>Content %</u>	<u>CAS Number</u>
1-Isopropyl-2,2-dimethyltrimethylene diisubutyrate	25-50	6846-50-0
Oxirane, 2-methyl-, polymer with oxirane	5-10	9003-11-6
2,2'-Oxybisethanol	5-10	111-46-6

Exact concentrations have been withheld as a Trade Secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

SECTION IV – FIRST AID MEASURES

Inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Eyes:

Flush with plenty of water, preferably lukewarm for at least 15 minutes, holding eyelids open all the time. Get medical attention if problems persist.

Skin:

Remove contaminated clothing. Wash affected skin thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse. For severe exposures, get under safety shower and begin rinsing. Seek medical attention if irritation develops or persists after the area is washed.

Ingestion: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person.

**CEMENT & CONCRETE PRODUCTS™**

If unconscious, place in recovery position and get medical attention immediately.
Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

SECTION V - FIRE FIGHTING MEASURES

Flash Point: 129°C (265°F) TAG Closed Cup.
Flammable Limits: N/A

Extinguisher Media

Dry Chemical; Carbon Dioxide; Water spray for large fires.

Special Instructions:

Use water to cool containers. Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters.

SECTION VI – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated

SDS F6B

QUIKRETE Companies, LLC
7/22/2019



CEMENT & CONCRETE PRODUCTS™

absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND STORAGE

Protective measures

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures. Remove contaminated clothing and protective equipment before entering eating areas.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

SECTION VIII – EXPOSURE CONTROL MEASURES / PERSONAL PROTECTION

Control parameters

United States

Occupational exposure limits

Ingredient name

1-Isopropyl-2,2-dimethyltrimethylene diisobutyrate

Oxirane, 2-methyl-, polymer with oxirane
2,2' -Oxybisethanol

Exposure limits

None.

None.

AIHA WEEL (United States, 10/2011).
TWA: 10 mg/m³ 8 hours.

SDS F6B

QUIKRETE Companies, LLC
7/22/2019

**CEMENT & CONCRETE PRODUCTS™****Canada****Occupational exposure limits****Ingredient name**

2,2' -Oxybisethanol

Exposure limits

AIHA WEEL (United States, 10/2011).

TWA: 10 mg/m³ 8 hours.

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures**Hygiene Measures**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing.

Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with sideshields.

Skin protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Appropriate footwear and any additional skin protection measures should be selected

SDS F6B

QUIKRETE Companies, LLC

7/22/2019

**CEMENT & CONCRETE PRODUCTS™**

based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory Protection

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

SECTION IX - PHYSICAL/CHEMICAL CHARACTERISTICS

These data do not represent technical or sales specifications.

Physical State:	Liquid
Color:	Black (Light Gray when cured)
Evaporation Rate:	N/A
Odor:	Slight
Specific Gravity(g/cc):	0.98
Vapor Pressure:	0.1 mm Hg @ 77°F (25°C)
VOC Content:	CARB Chemically Curing Sealant (Nonaerosol); VOC < 2% by weight; Meets VOC requirements in all locations; VOC <20 g/L per EPA Method 24.
pH:	N/D
Kinematic Viscosity:	0.6 cm ² /s (60 cSt) @ 77°F
Boiling Point:	N/D

SECTION X – STABILITY AND REACTIVITY

Stability:

Stable

Incompatibilities:

Strong oxidizers, strong alkalis

Decomposition products:

Carbon monoxide, carbon dioxide, nitrogen oxides



CEMENT & CONCRETE PRODUCTS™

SECTION XI – TOXICOLOGICAL INFORMATION

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Oxirane, 2-methyl-, polymer with oxirane	LC50 Inhalation Vapor	Rat	320 mg/m ³	4 hours
2,2' -Oxybisethanol	LD50 Oral	Rat	5700 mg/kg	-
	LD50 Dermal	Rabbit	11890 mg/kg	-
	LD50 Oral	Rat	12000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
1-Isopropyl-2,2-dimethyltrimethylene diisobutyrate	Skin - Mild irritant	Guinea pig	-	5 g	-
	Skin - Mild irritant	Human	-	504 hours 1% Intermittent	-
2,2' -Oxybisethanol	Eyes - Mild irritant	Rabbit	-	50 mg	-
	Skin - Mild irritant	Human	-	72 hours 112 mg Intermittent	-
	Skin - Mild irritant	Rabbit	-	500 mg	-

Sensitization: There is no data available.

Mutagenicity: There is no data available.

Carcinogenicity: There is no data available.

Reproductive Toxicity: There is no data available.

Teratogenicity: There is no data available.

Specific Target Organ Toxicity (Single Exposure): There is no data available.

Specific Target Organ Toxicity (Repeat Exposure) There is no data available.

Aspiration Hazard: There is no data available.

Likely Exposure Routes:

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Potential Acute Health Effects:

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Potential Chronic Health Effects:

SDS F6B

QUIKRETE Companies, LLC
7/22/2019

CEMENT & CONCRETE PRODUCTS™

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	7586.8 mg/kg

SECTION XII – ECOLOGICAL INFORMATION

Toxicity

Product/ingredient name	Result	Species	Exposure
2,2'-Oxybisethanol	Acute LC50 75200000 µg/L Fresh water	Fish - Pimephales promelas	96 hours

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
1-Isopropyl-2,2-dimethyltrimethylene diisobutyrate	-	5340	high
2,2'-Oxybisethanol	-1.98	100	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

SECTION XIII – DISPOSAL CONSIDERATIONS

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste

**CEMENT & CONCRETE PRODUCTS™**

packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION XIV – TRANSPORT INFORMATION

This product is not regulated as a hazardous material for transportation.

SECTION XV – OTHER REGULATORY INFORMATION

U.S. Federal regulations**TSCA 5(a)2 final significant new use rules:** 2-Methoxyethanol**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined**United States inventory (TSCA 8b):** Not determined.**Clean Water Act (CWA) 311:** Diammonium carbonate; Phosphoric acid

:

Clean Air Act Section 112 : Listed(b) Hazardous Air
Pollutants (HAPs)**Clean Air Act Section 602** : Not listed**Class I Substances** : Not listed
Clean Air Act Section 602**Class II Substances** : Not listed
DEA List I Chemicals
(Precursor Chemicals)**DEA List II Chemicals** : Not listed
(Essential Chemicals)**SARA 302/304**

Composition/information on ingredients: No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Composition/information on ingredients

SDS F6B

QUIKRETE Companies, LLC
7/22/2019

**CEMENT & CONCRETE PRODUCTS™**

Classification : Not applicable.

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
2,2' -Oxybisethanol	No.	No.	No.	Yes.	No.

State regulations

Massachusetts	: None of the components are listed.
New York	: None of the components are listed.
New Jersey	: None of the components are listed.
Pennsylvania	: The following components are listed: Oxydipropanol; 2,2' -Oxybisethanol
California Prop. 65	



WARNING: This product can expose you to chemicals including 1,4-Dioxane which are known to the State of California to cause cancer and Ethanediol and 2-Methoxyethanol which are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Canada**Canadian lists**

Canadian NPRI : None of the components are listed.
CEPA Toxic Substances: None of the components are listed.
Canada inventory : Not determined.

SECTION XVI – OTHER INFORMATION

Last Updated: July 22, 2019

MANUFACTURER DISCLAIMER: This SDS to the best of our knowledge conforms to the requirements of OSHA 29 CFR 1910.1200, 91/155/EEC and summarizes the health and safety hazard information and general guidance on how to safely handle the material at the date of issue. Each user must review the SDS in the context of how the product will be handled and used in the workplace. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. Responsibility for the product sold is subject to our standard terms and conditions, a copy of which is available upon request. This company warrants only that its products meet the specifications stated in the sales contract. Typical properties, where stated, are to be considered as representative of

SDS F6B

QUIKRETE Companies, LLC
 7/22/2019

**CEMENT & CONCRETE PRODUCTS™**

current production and should not be treated as specifications. While all the information presented in this document is believed to be reliable and to represent the best available data on these products, NO GUARANTEE, WARRANTY, OR REPRESENTATION IS MADE, INTENDED, OR IMPLIED AS TO THE CORRECTNESS, OR SUFFICIENCY OF ANY INFORMATION, OR AS TO THE MERCHANTABILITY OR SUITABILITY OR FITNESS OF ANY CHEMICAL COMPOUNDS OR OTHER PRODUCTS FOR ANY PARTICULAR USE OR PURPOSE, OR THAT ANY CHEMICAL COMPOUNDS OR OTHER PRODUCTS OR THE USE THEREOF ARE NOT SUBJECT TO A CLAIM BY A THIRD PARTY FOR INFRINGEMENT OF ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHT. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. Liability by this company for all claims, whether arising out of breach of warranty, negligence, strict liability, or otherwise, is limited to the purchase price of the material. Products may be toxic and require special precautions in handling. For all products listed, the user should obtain detailed information on toxicity, together with the proper shipping, handling and storage procedures, and comply with all applicable safety and environmental standards. Toxicity and risk characteristics of chemical compounds and other products may differ when used with other materials or in a manufacturing or other process. Those risk characteristics should be determined by the user and made known to handlers, processors, and end users.

End of SDS