

FX-70-6MP™ Multi-Purpose Marine Epoxy Grout

SAFETY DATA SHEET

SIMPSON
Strong-Tie

This Safety Data Sheet was prepared following the Code of Practice: Preparation of Safety Data Sheets for Hazardous Chemicals from Work Safe Australia and the New Zealand Code of Practice for the Preparation of Safety Data Sheets (SDS) [No. HSNO CoP 8-1 09-06]. This product has been classified according to the hazard criteria of the Globally Harmonized System (GHS) and contains all of the information required by Safe Work Australia and Work Safe New Zealand.

1. Identification

Product Identification

Product Identifier:	A Component FX-70-6MP™
Recommended Use:	FX-70-6MP™ is a multi-purpose, three-component marine epoxy grout for underwater repair application as part of the FX-70® Structural Repair and Protection System.
Use Restrictions:	For industrial use only. To ensure proper installation, use according to package directions. Complete application instructions can be found in Simpson Strong-Tie catalogs or online at strongtie.com .

Company Identification

Company: Simpson Strong-Tie Australia Pty Limited
Address: Unit 1/16 Kenoma Place
Arndell Park, NSW 2148
Australia
Phone: +612 9831 7700
Website: www.strongtie.com.au
Emergency: 13 11 26

Company: Simpson Strong-Tie New Zealand
Address: 52 A Arrenway Drive
Albany, Auckland 0632
New Zealand
Phone: +64 9 477 4440
Website: www.strongtie.co.nz
Emergency: 0800 POISON (0800 764 766)

2. Hazard Identification

General Information

FX-70-6MP™ is a 100% solids, three-part system (2A:1B mix). It is high-strength epoxy grout repair mortar resistant to the chemical and physical strains of a marine environment. FX-70-6MP™ is moisture-tolerant and specifically designed for underwater applications as part of the FX-70® Structural Repair and Protection System. The three parts of this product have been individually assessed according to the Globally Harmonized System (GHS). The mixed product can be assumed to carry the hazards of each component until the product has been fully cured. The final cured product will be dark tan in color and can be considered nonhazardous. This Safety Data Sheet covers hazards and responses for Component A. See Component B and Component C Safety Data Sheets for complete product information. The product should be mixed thoroughly with a low speed drill. CAUTION: Product mixing may produce heat, wear appropriate personal protective equipment and handle mixed material with caution.

Component A GHS Classification

Classification according to HazCom2012 (GHS)

Physical Hazards:	Flammable Liquid	Category 4	H227: Combustible liquid.
Health Hazards:	Skin Corrosion/Irritation	Category 2	H315: Causes skin irritation
	Serious Eye Damage/Irritation	Category 2	H319: Causes serious eye irritation.
	Sensitization, Skin	Category 1	H317: May cause an allergic skin reaction.
	Germ Cell Mutagenicity	Category 2	H341: Suspected of causing genetic defects.
	Carcinogenicity	Category 2	H351: Suspected of causing cancer.
Environmental Hazards:	Chronic Aquatic Hazard	Category 2	H411: Toxic to aquatic life with long lasting effects.

New Zealand Hazardous Substances and New Organisms Classification

3.1D – Flammable Liquid; 6.3A – Skin Corrosion/Irritation; 6.4A – Serious Eye Damage/Eye Irritation; 6.5B – Skin Sensitization; 6.6B – Germ Cell Mutagenicity; 6.7B – Carcinogenicity; 9.1B – Aquatic Toxicity (Chronic)

GHS Label Elements



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Contains:	Bisphenol-A-Epichlorohydrin Epoxy Resin, Glycidyl Ethers	
Signal Word:	WARNING!	
Hazard Statements:	H227:	Combustible liquid.
	H315:	Causes skin irritation.
	H319:	Causes serious eye irritation.
	H317:	May cause an allergic skin reaction.
	H341:	Suspected of causing genetic defects.
	H351:	Suspected of causing cancer.
	H411:	Toxic to aquatic life with long lasting effects.
Precautionary Statements:		
Prevention:	P201:	Obtain special instructions before use.
	P202:	Do not handle until all safety precautions have been read and understood.
	P210:	Keep away from heat, hot surfaces, sparks, open flame; and other ignition sources. No smoking.
	P261:	Avoid breathing mist or vapor.
	P264:	Wash thoroughly after handling.
	P272:	Contaminated clothing should not be allowed out of the workplace.
	P273:	Avoid release to the environment.
	P280:	Wear protective gloves/protective clothing/eye protection/face protection.
Response:	P302+P352:	IF ON SKIN: Wash with plenty of water.
	P333+P313:	If skin irritation or rash occurs: Get medical advice/attention.
	P362+P364:	Take off contaminated clothing and wash before reuse.
	P305+P351+P338:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P337+P313:	If eye irritation persists: Get medical advice/attention.
	P308+P313:	IF exposed or concerned: Get medical advice/attention.
	P391:	Collect spillage.
Storage:	P403:	Store in a well ventilated place.
	P405:	Store locked up.
Disposal:	P501:	Dispose of contents/container in accordance with local/regional regulations.

Supplemental Label Information: None known.

Hazards Not Otherwise Classified (HNOC)

The above hazards are for the uncured A component of FX-70-6MP. Upon combination with the B and C components of FX-70-6MP an innocuous solid, that does not present any immediate hazards, is formed. Upon grinding or cutting through the cured product, the following hazards may apply. If deemed necessary, the use of an approved respirator or dust mask can be used to control exposure to any dust that may occur.



Chronic Health

Health Hazard:	Carcinogenicity	Category 1A
	STOT, Repeated Exposure	Category 2 (Lung)
OSHA Hazards:	Combustible Dust	
Hazard Statements:	May cause cancer.	
	May cause damage to organs (lung) through prolonged or repeated exposure.	
	Can form explosive air-dust mixtures, avoid creating dust.	
Precautionary Statements:	Do not breathe dust.	
	Do not allow dust to build up on surfaces.	

3. Composition Information

General Information

This product is a mixture. Hazardous ingredients for each component are listed below.
May include other nonhazardous ingredients. May include other trace ingredients, see Section 15.

List of abbreviations and symbols:

Classification: Globally Harmonized System Classifications

The full text for H- phrases is displayed in section 16. All concentrations are in percent by weight unless otherwise noted.

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Composition – All concentrations are in percent by weight unless otherwise indicated.

Chemical Name	Weight %	CAS Number	EC Number
(Bisphenol-A-Epichlorohydrin) Epoxy Resin	60-90	25068-38-6	500-033-5
Classification: Skin Irrit. 2: H315, Eye Irrit. 2: H319, Skin Sens. 1: H317, Aquatic Chronic 2: H411			
o-Cresyl Glycidyl Ether	< 15	2210-79-9	218-645-3
Classification: Skin Irrit. 2: H315, Skin Sens. 1: H317, GCM 2: H341, Aquatic Chronic 2: H411			
N- Butyl Glycidyl Ether	< 15	2426-08-6	219-376-4
Classification: Flam. Liq. 3: H226, Acute Tox 4: H302+H322, Skin Irrit. 2: H315, Eye Irrit. 2: H319, Skin Sens 1: H317, GCM 2: H341, Carc. 2: H351, STOT SE3: H335, Aquatic 3: H401+H411			

4. First-Aid Measures

General Information

Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse.

Routes of Exposure

Eye Contact: Immediately flush eyes with plenty of cool water for at least 15 minutes while holding the eyes open. Remove contact lenses if present and easy to do. If redness, burning, blurred vision, or swelling persists, **consult a physician.**

Skin Contact: Remove contaminated clothing and product, immediately wash affected area with soap and water. Do not apply greases or ointments. If rash or irritation persists **consult a physician.**

Ingestion: Rinse mouth immediately. Do not induce vomiting unless told to do so by a poison control center or doctor. If vomiting occurs keep head low so that stomach contents don't get into the lungs. Never give anything by mouth to an unconscious person. **Consult a physician.**

Inhalation: If breathing is difficult remove patient to fresh air and keep at rest in a position comfortable for breathing. Give oxygen or artificial respiration if needed. If patient continues to experience difficulty breathing, **consult a physician.**

Most Important Symptoms

Irritation of eyes and skin. Rash. Symptoms include redness, itching, burning, tearing, swelling, and blurred vision.

5. Fire-Fighting Measures

Suitable Extinguishing Media: Extinguish with foam, carbon dioxide, dry powder, or water fog.

Additional Information: None known.

Hazards during Fire-Fighting: Hazardous decomposition products may occur when materials polymerize at temperatures above 500°F (260°C).

Fire-Fighting Procedures: Use standard fire-fighting procedures and consider the hazards of other involved materials. In case of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn. Move containers from fire area if you can do so without risk. Cool containers with flooding quantities of water until well after fire is out. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

6. Accidental Release Measures

Personal Precautions

Non-emergency personnel: Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep unnecessary personnel away. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors or mists. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

Emergency personnel: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate personal protection.

Clean-Up Methods

Small spills: Wipe up with absorbent material (e.g. cloth, fleece). Place in leak-proof containers. Seal tightly for proper disposal. Clean surface thoroughly to remove residual contamination.

Large spills: Stop the flow of material, if this is without risk. Dike far ahead of spill to contain material. Use a non-combustible material like vermiculite, sand or earth to soak up the product. Place in leak-proof containers. Seal tightly for proper disposal. Following product recovery, flush area with water. Prevent entry into waterways, sewer, basements or confined areas.

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Cured Material:

Chip or grind off surface. If you are grinding or cutting cured product, ensure good work practice and use of personal protective equipment as needed to control exposure to respirable dust.

Environmental Precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so.

7. Handling and Storage

Handling

Wear appropriate personal protective equipment. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Avoid prolonged exposure. Provide adequate ventilation. Avoid breathing fumes or vapors. When in use do not eat, drink, or smoke. Wash thoroughly after handling. Wash contaminated clothing before reuse. Avoid contact during pregnancy/while nursing. Observe good industrial hygiene practices. Do not empty into drains, avoid release to the environment.

Storage

Store in a closed container away from incompatible materials. Keep in original container. Keep container tightly closed. Store in a cool, dry place out of direct sunlight. Keep away from heat and sources of ignition. Store in a well-ventilated place. Protect against physical damage. Keep out of the reach of children.

8. Exposure Controls / Personal Protection

Personal Protective Equipment

Protective Measure:	Wear appropriate personal protective equipment.
Eye Protection:	Wear chemical splash goggles or safety glasses with side shield. Face shield is recommended when splashing is probable.
Hand Protection:	Wear chemical-resistant gloves such as: Nitrile, neoprene, or butyl rubber.
Skin and Body Protection:	Avoid contact with skin, wear long sleeve shirt/long pants and other clothing as required to minimize contact.
Respirator Protection:	If engineering controls do not maintain airborne concentrations below recommended exposure limits, or if discomfort is experienced, an approved respirator should be worn.
General Hygiene:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Engineering Controls

Mechanical ventilation or local exhaust ventilation is recommended, ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and emergency shower.

Exposure Limits

No exposure limits noted for ingredients.

9. Physical and Chemical Properties

Physical State:	Liquid	Freezing/Melting Point:	N/A
Form:	Liquid	Boiling Point:	N/E
Color:	Clear Amber	Flash Point:	179 °F (82°C)
Odor:	Sweet	Evaporation Rate:	N/A
Odor Threshold:	N/A	Specific Gravity:	1.12
pH:	N/A	VOC (A+B+C):	2 g/L
Flammability:	N/A	U/L Flammability:	N/A
Vapor Pressure:	N/A	Vapor Density:	N/A
Solubility:	Soluble	Kow:	N/A
Decomposition:	N/A	Viscosity:	N/A

10. Stability and Reactivity

Reactivity:	This product is stable and non-reactive under normal conditions.
Chemical Stability:	Stable under normal storage conditions.
Condition to Avoid:	High heat and open flame.
Substances to Avoid:	Oxidizing agents, acids, organic bases, and amines.
Hazardous Reactions:	Hazardous polymerization does not occur.
Decomposition Products:	Carbon dioxide, carbon monoxide, oxides of nitrogen, and other organic compounds.

11. Toxicological Information

Likely Routes of Exposure

Ingestion:	Expected to be a low ingestion hazard. Ingestion may cause irritation to the respiratory tract.
Inhalation:	This material is a viscous liquid to semi-solid which does not easily form vapors. If heated vapors may cause irritation to nose and respiratory tract.
Skin contact:	Causes skin irritation. May cause sensitization by skin contact.
Eye contact:	Causes serious eye irritation.
Symptoms:	Rash, redness, itching, burning, tearing, swelling, and blurred vision.

Information on Toxicological Effects

Acute Effects

Toxicity:	Not expected to be acutely toxic. Occupational exposure to the substance or mixture may cause adverse effects.
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Component	Test Result
FX-70-6MP Component A Toxicity Estimate	
Acute, Oral, LD50	6698
Acute, Dermal, LD50	2008

Component	Species	Test Result
Bisphenol-A-(Epichlorohydrin) Epoxy Resin (CAS 25068-38-6)		
Acute, Oral, LD50	Rat	11400 mg/kg
Acute, Dermal, LD50	Rabbit	>2000 mg/kg
N-Butyl Glycidyl Ether (CAS 2426-08-6)		
Acute, Oral, LD50	Rat	1660 mg/kg
Acute, Dermal, LD50	Rat	>2150 mg/kg
o-Cresyl Glycidyl Ether (CAS 2210-79-9)		
Acute, Oral, LD50	Rat	4000 mg/kg
Acute, Dermal, LD50	Rabbit	>2100 mg/kg
Acute, Inhalation, LC50	Rat	6.09 mg/l, 4 hours

Skin corrosion/irritation:	Causes skin irritation.
Eye damage/eye irritation:	Causes serious eye irritation.
Respiratory sensitization:	No data available.
Skin sensitization:	May cause an allergic skin reaction.
Aspiration hazard:	Not expected to be an aspiration hazard.
Specific Target Organ Toxicity	
Single Exposure:	Not classified.

Chronic Effects

Germ cell mutagenicity:	Contains a component that is suspected of causing genetic defects.
Carcinogenicity:	Limited evidence that components of FX-70-6MP component A may cause carcinogenic effects. FX-70-6MP Component C contains components that are listed carcinogens. These components are considered carcinogens only in their inhalable form. Due to the nature of this product, inhalation is highly unlikely. Exposure to respirable carcinogens is likely only when grinding or cutting cured product. Ensure good work practice and use of personal protective equipment as needed to control exposure to processing dust.

Reproductive toxicity:	No data available.
Specific Target Organ Toxicity	
Repeated Exposure:	FX-70-6MP Component C contains components that may cause damage to the lungs. Due to the nature of this product, inhalation is highly unlikely. Exposure is likely only when grinding or cutting cured product. Ensure good work practice and use of personal protective equipment as needed to control exposure to processing dust.

Further Information

Toxicological, ecotoxicological, physical, and chemical properties may not have been fully investigated. Hazard data above is estimated based on best available information. Some workers with certain pre-existing medical conditions such as: asthma, allergies, or impaired pulmonary and/or liver functions, or who may be particularly susceptible to this material, may be affected by exposure to this material.

12. Ecological Information

General Information

Information given is based on data on the components and the ecotoxicology of similar products. The product is classified as toxic to aquatic life with long lasting effects. Avoid release to the environment.

Supporting Data

Component	Species	Test Result
Bisphenol-A-(Epichlorohydrin) Epoxy Resin (CAS 25068-38-6)	Aquatic , Fish, LC50	Salmo gairdneri 1.5 mg/l, 96 hours
	Aquatic , Crustacea, EC50	Daphnia magna 2.1 mg/l, 48 hours
	Aquatic , Algae, EC50	Algae >11 mg/l, 72 hours
N-Butyl Glycidyl Ether (CAS 2426-08-6)	Aquatic , Crustacea, EC50	Daphnia magna 3.9 mg/l, 48 hours
o-Cresyl Glycidyl Ether (CAS 2210-79-9) Similar Material	Aquatic , Fish, LC50	Fish 2.8-5.1 mg/l, 96 hours
	Aquatic , Crustacea, EC50	Crustacea 2.8 mg/l, 48 hours
	Aquatic , Algae, EC50	Algae 5.1 mg/l, 72 hours

Persistence and degradability: This product is not expected to be readily biodegradable.
Bioaccumulative potential: No data available.

Chemical	Log Kow	BCF	Bioaccumulation Potential
Bisphenol-A-(Epichlorohydrin) Epoxy Resin (CAS 25068-38-6)	2.64-3.78	3-31	low
N-Butyl Glycidyl Ether (CAS 2426-08-6)	0.63	---	---
o-Cresyl Glycidyl Ether (CAS 2210-79-9)	2.5	---	---

Mobility in soil: No data available.

Other Adverse Effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product.

13. Disposal Considerations

Waste Disposal of Substance: Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Container Disposal: Empty containers or liners may retain some product residues; follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Disposal of Cured Product: Chip or grind off surface. Solid material does not need special disposal consideration.

14. Transportation Information

FX-70-6MP Component A is not regulated for ground transportation by US DOT; check specific requirements for other regions and other shipping methods. Check limited quantity regulations prior to shipping, smaller volumes may qualify for LQ shipping exemptions.

UN number: UN3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Bisphenol-A Epichlorohydrin Resin), 9, III, Marine Pollutant

Transportation Class: 9
Packing Group: III
Environmental Hazard: Yes
Required Labels: 9
Precautions: Other Hazard
ERG Code (IATA): 9L
EmS (IMDG): F-A, S-F

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Additional Information

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

This substance/mixture is not intended to be transported in bulk.

This information does not cover all specific regulatory or operational requirements of this product. The classifications for transportation may vary by container volume or different regional or national regulations.

15. Regulatory Information

United States

Federal Regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA (Toxic Substances Control Act): All components are on the TSCA inventory.

Australia

This SDS was prepared following the Code of Practice: Preparation of Safety Data Sheets for Hazardous Chemicals from Work Safe Australia. This product has been classified according to the hazard criteria of GHS and contains all of the information required by WHS.

Australian Inventory of Chemical Substances (AICS)	
Chemical	Registration Status
Bisphenol-A Based Epoxy Resin (CAS 25068-38-6)	Hazardous Substance IMAP – Tier II – Human Health
o-Cresyl Glycidyl Ether (CAS 2210-79-9)	Hazardous Substance IMAP – Tier II - Human
N-Butyl Glycidyl Ether (CAS 2426-08-6)	Hazardous Substance IMAP – Tier II - Human

New Zealand

New Zealand Code of Practice for the Preparation of Safety Data Sheets (SDS) [No. HSNO CoP 8-1 09-06].
Classified as hazardous according to the Hazardous Substances (minimum Degrees of Hazard) Regulations 2001.

New Zealand Inventory of Chemicals (NZIoC)	
Chemical	Registration Status
BPA Based Epoxy Resin (CAS 25068-38-6)	HSNO Approved (HSR003180)
N-Butyl Glycidyl Ether (CAS 2426-08-6)	HSNO Approved (HSR002921)
o-Cresyl Glycidyl Ether (CAS 2210-79-9)	HSNO Approved (HSR007257)

South Africa National Regulations

Simpson Strong-Tie South Africa is a subsidiary of Simpson Strong-Tie Australia and relies on the parent company to support many of the services it provides, one of these services is Safety Data Sheets (SDS). This SDS contains all of the relevant information required for the South African market, with the exception of the following information.

Local contact information for South African Poisons Centre – Phone: 0219 316129 or 021 6895227

Local Contact for Simpson Strong-Tie who has access to the SDS sheets - Houston Hank – Phone: 0873 540629

REGISTERED OFFICE: Unit 5, Fairway Business Park, Stibitz Street
Westlake Business Park, Westlake 7945
Cape Town, Western Province

POSTAL ADDRESS: PO Box 281 Bergvliet 7864

PHONE: 0873540629

DIRECTORS: Brian Magstadt & Herbert Kuhn

REGISTRATION #: 2012/052288/07

VAT #: 4190262362

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International

This product is not subject to or not applicable for any of the following International Regulations; **Stockholm Convention, Rotterdam Convention, Kyoto Protocol, Montreal Protocol, Basel Convention.**

REACH Registered Substances			
Chemical	CAS Number	EC Number	Index Number
Bisphenol-A Based Epoxy Resin	25068-38-6	500-033-5	603-074-00-8
N-Butyl Glycidyl Ether	2426-08-6	219-376-4	603-039-00-7
o-Cresyl Glycidyl Ether	2210-79-9	218-645-3	603-056-00-X

This product is not subject to or not applicable for any of the following International Regulations; **Stockholm Convention, Rotterdam Convention, Kyoto Protocol, Montreal Protocol, Basel Convention.**

International Inventories

Australia	All components of this product are listed on the Australian Inventory of Chemical Substances (AICS).
Canada	All components of this product are included on the Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL).
China	All components of this product are listed on the Inventory of Existing Chemical Substances in China (IECSC)
Europe	All components of this product are included on the European Inventory of Existing Commercial Chemical Substances (EINECS) or are exempt from listing.
Japan	All components in this product are listed on the Inventory of Existing and New Chemical Substances (ENCS).
Korea	All components of this product are included on the Existing Chemicals List (ECL)
New Zealand	All components of this product are included on the New Zealand Inventory.
Philippines	All components in this product are listed in the Philippine Inventory of Chemicals and Chemical Substances (PICCS).
United States & Puerto Rico	All components of this product are listed on the Toxic Substances Control Act (TSCA) Inventory or are not required to be listed.

16. Other Information

Date Prepared or Revised: March 2017
Supersedes: February 2016

Contact Simpson Strong-Tie Environmental Health and Safety at EHS@strongtie.com.

Abbreviations

ACGIH:	American Conference of Governmental Industrial Hygienists
CAS No.:	Chemical Abstract Service Registry Number
CERCLA:	Comprehensive Environmental Response, Compensation and Liability Act (U.S. EPA)
HPR:	Hazardous Product Regulations (Canada)
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
IATA:	International Air Transport Association
IMDG:	International Maritime Dangerous Goods code
NIOSH:	National Institute of Occupational Safety and Health (U.S.)
NFPA:	National Fire Protection Association (US)
NTP:	National Toxicology Program (US)
PEL:	Permissible Exposure Limit
SARA:	Superfund Amendments and Reauthorization Act (U.S. EPA)
STEL:	Short Term Exposure Limit (15 minute Time Weighted Average)
STOT:	Specific Target Organ Toxicity (GHS Classification)
TLV:	Threshold Limit Value

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TSCA: Toxic Substances Control Act (U.S.)
TWA: Time Weighted Average (exposure for 8-hour workday)
VOC: Volatile Organic Compounds
WHMIS: Canadian Workplace Hazardous Materials Information System

Full Text of H – Phrases Under Section 3

H226: Flammable liquid and vapor.
H302: Harmful if swallowed.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H332: Harmful if inhaled.
H341: Suspected of causing genetic defects.
H411: Toxic to aquatic life with long lasting effects.

Disclaimer

This Safety Data Sheet (SDS) is prepared by Simpson Strong-Tie Co. in compliance with the requirements of OSHA 29 CFR Part 1910.1200. The information it contains is offered in good faith as accurate as of the date of this SDS. This SDS is provided solely for the purpose of conveying health, safety, and environmental information. No warranty, expressed or implied, is given. Health and Safety precautions may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations.

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FX-70-6MP™ Multi-Purpose Marine Epoxy Grout

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1. Identification

Product Identification

Product Identifier: **B Component FX-70-6MP™**

Recommended Use: FX-70-6MP™ is a multi-purpose, three-component marine epoxy grout for underwater repair application as part of the FX-70® Structural Repair and Protection System.

Use Restrictions: For industrial use only. To ensure proper installation, use according to package directions. Complete application instructions can be found in Simpson Strong-Tie catalogs or online at strongtie.com.

Company Identification

Company: Simpson Strong-Tie Australia Pty Limited
Address: Unit 1/16 Kenoma Place
 Arndell Park, NSW 2148
 Australia
Phone: +612 9831 7700
Website: www.strongtie.com.au
Emergency: 13 11 26

Company: Simpson Strong-Tie New Zealand
Address: 52 A Arrenway Drive
 Albany, Auckland 0632
 New Zealand
Phone: +64 9 477 4440
Website: www.strongtie.co.nz
Emergency: 0800 POISON (0800 764 766)

2. Hazard Identification

General Information

FX-70-6MP™ is a 100% solids, three part system (2A:1B mix). It is high-strength epoxy grout repair mortar resistant to the chemical and physical strains of a marine environment. FX-70-6MP™ is moisture-tolerant and specifically designed for underwater applications as part of the FX-70® Structural Repair and Protection System. The three parts of this product have been individually assessed according to the Globally Harmonized System (GHS). The mixed product can be assumed to carry the hazards of each component until the product has been fully cured. The final cured product will be dark tan in color and can be considered nonhazardous. This Safety Data Sheet covers hazards and responses for Component B. See Component A and Component C Safety Data Sheets for complete product information. The product should be mixed thoroughly with a low speed drill. CAUTION: Product mixing may produce heat, wear appropriate personal protective equipment and handle mixed material with caution.

Component B GHS Classification

Classification according to HazCom2012 (GHS)

Physical Hazards:	Not classified.		
Health Hazards:	Acute Toxicity, Oral	Category 4	H302: Harmful if swallowed
	Acute Toxicity, Dermal	Category 4	H312: Harmful in contact with skin
	Skin Corrosion/Irritation	Category 1B	H314: Causes severe skin burns and eye damage
	Serious Eye Damage/Irritation	Category 1	H318: Causes serious eye damage
	Sensitization, Skin	Category 1	H317: May cause an allergic skin reaction
	Sensitization, Respiratory	Category 1	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
	Carcinogenicity	Category 2	H351: Suspected of causing cancer
Environmental Hazards:	Chronic Aquatic Hazard	Category 3	H412: Harmful to the aquatic environment with long lasting effects
Main Symptoms:	Damage to the eyes and skin. Symptoms include burns, redness, itching, tearing, swelling, and blurred vision. May cause rash/allergic reaction to the skin. May cause shortness of breath, coughing, or other asthma or allergy symptoms. May cause severe irritation or burns to the gastrointestinal tract and respiratory system. Long term exposure may cause chronic effects.		

New Zealand Hazardous Substances and New Organisms Classification

6.1D – Acute Toxicity, Oral; 6.1D – Acute Toxicity, Dermal; 6.3A – Skin Corrosion/Irritation; 8.3A – Serious Eye Damage/Eye Irritation; 6.5A – Respiratory Sensitization; 6.5B – Skin Sensitization; 6.7B – Carcinogenicity; 9.1B – Aquatic Toxicity (Chronic)

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GHS Label Elements

SIMPSON
Strong-Tie



Contains:	Amines, Benzyl Alcohol, Bisphenol-A-Epichlorohydrin Epoxy Resin, Salicylic Acid
Signal Word:	DANGER!
Hazard Statements:	H302: Harmful if swallowed. H312: Harmful in contact with skin. H314: Causes severe skin burns and eye damage. H318: Causes serious eye damage. H317: May cause an allergic skin reaction. H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled. H351: Suspected of causing cancer. H412: Harmful to the aquatic environment with long lasting effects.
Precautionary Statements:	
Prevention:	P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P260: Do not breathe mist or vapor. P264: Wash thoroughly after handling. P270: Do not eat, drink, or smoke when using this product. P271: Use only outdoors or in a well-ventilated area. P272: Contaminated clothing should not be allowed out of the workplace. P273: Avoid release to the environment.
Response:	P280: Wear protective gloves/protective clothing/eye protection/face protection. P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P314: Get medical attention if you feel unwell. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P333+P313: If skin irritation or rash occurs: Get medical advice/attention. P363: Wash contaminated clothing before reuse. P304+P340: IF INHALED: Remove victim 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. P337+P313: If eye irritation persists: Get medical advice/attention. P308+P313: If exposed or concerned: Get medical advice/attention.
Storage:	P391: Collect spillage. P403: Store in a well-ventilated place.
Disposal:	P405: Store locked up. P501: Dispose of contents/container in accordance with local/regional regulations.

Supplemental Label Information: None known.

Hazards Not Otherwise Classified (HNOC)

FX-70-6MP Component B contains chemicals which can be acutely toxic when inhaled as a dust or mist. Due to the viscous liquid to semi-solid nature of this product, this route of exposure is unlikely, and therefore unlikely to be harmful in its uncured form. Simpson Strong-Tie chooses to warn consumers of this potential risk to ensure safe use of the product. The above hazards are for the uncured B component of FX-70-6MP. Upon combination with the A and C components of FX-70-6MP an innocuous solid, that does not present any immediate hazards, is formed. Upon grinding or cutting through the cured product, the following hazards may apply. If deemed necessary, the use of an approved respirator or dust mask can be used to control exposure to any dust that may occur.



Health Hazard:	Carcinogenicity STOT, Repeated Exposure	Category 1A Category 2 (Lung)
Hazard Statements:	Harmful if inhaled. May cause cancer.	

May cause damage to organs (lung) through prolonged or repeated exposure.

Precautionary Statements: Do not breathe dust or mist.
Do not breathe dust.
Do not allow dust to build up on surfaces.

3. Composition Information

General Information

This product is a mixture. Hazardous ingredients for each component are listed below.
May include other nonhazardous ingredients. May include other trace ingredients, see Section 15.

List of abbreviations and symbols:

Classification: Globally Harmonized System Classifications

The full text for H- phrases is displayed in section 16. All concentrations are in percent by weight unless otherwise noted.

Composition – All concentrations are in percent by weight unless otherwise indicated.

Chemical Name	Weight %	CAS Number	EC Number
Isophorone Diamine	20-40	2855-13-2	220-666-8
Classification: Acute Tox. 4: H302, Skin Corr. 1B: H314, Skin Sens. 1: H317, Aquatic Chronic 3: H412			
Benzyl Alcohol	20-40	100-51-6	202-859-9
Classification: Acute Tox. 4: H302+H322			
Triethylenetetramine	< 10	112-24-3	203-950-6
Classification: Acute Tox. 4: H302+H312, Skin Corr. 1B: H314, Skin Sens. 1: H317, Aquatic Chronic 3: H412			
Bisphenol-A-Epichlorohydrin Epoxy Resin	< 10	25068-38-6	500-033-5
Classification: Skin Irrit. 2: H315, Eye Irrit. 2: H319, Skin Sens. 1: H317, Aquatic Chronic 2: H411			
Salicylic Acid	< 5	69-72-7	200-712-3
Classification: Acute Tox. 4: H302, Eye Corr. 1: H318			
Distillates (petroleum), heavy aromatic	< 5	64742-94-5	265-198-5
Classification: Asp. Tox. 1: H304			
Ethylenediamine	< 1	107-15-3	203-468-6
Classification: Flam. Liq. 3: H226, Acute Tox. 4: H302+H312, Skin Corr. 1B: H314, Skin Sens. 1: H317, Resp. Sens. 1: H334			
Naphthalene	< 0.2	91-20-3	202-049-5
Classification: Acute Tox. 4: H302, Carc. 2: H351, Aquatic 1: H400+H410			

4. First-Aid Measures

General Information

Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse.

Routes of Exposure

Eye Contact: Immediately flush eyes with plenty of cool water for at least 15 minutes while holding the eyes open. Remove contact lenses if present and easy to do. If redness, burning, blurred vision, or swelling persists, **consult a physician immediately.**

Skin Contact: Remove contaminated clothing and product, immediately wash affected area with soap and water. Do not apply greases or ointments. Chemical burns must be treated by a physician. If rash or irritation persists, **consult a physician.**

Ingestion: Rinse mouth immediately. Do not induce vomiting unless told to do so by a poison control center or doctor. If vomiting occurs keep head low so that stomach contents don't get into the lungs. Never give anything by mouth to an unconscious person. **Consult a physician.**

Inhalation: If breathing is difficult remove patient to fresh air and keep at rest in a position comfortable for breathing. Give oxygen or artificial respiration if needed. If patient continues to experience difficulty breathing, **consult a physician.**

Most Important Symptoms

Damage to the eyes and skin. Symptoms include burns, redness, itching, tearing, swelling, and blurred vision. Rash/dermatitis. Shortness of breath, coughing, or respiratory irritation. May cause severe irritation or burns to the gastrointestinal tract and respiratory system. Permanent eye damage, including blindness, could result.

5. Fire-Fighting Measures

Suitable Extinguishing Media:	Water fog, carbon dioxide, dry chemical powder, aqueous foam.
Additional Information:	None known.
Hazards during Fire-Fighting:	Irritating and toxic fumes may be produced at high temperature. Hazardous gases produced are carbon monoxide, carbon dioxide, oxides of nitrogen, cyanide, aldehydes, and miscellaneous hydrocarbons. Do not allow run-off from fire-fighting to enter drains or water courses.
Fire-Fighting Procedures:	Use standard fire-fighting procedures and consider the hazards of other involved materials. In case of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn. Move containers from fire area if you can do so without risk. Cool containers with flooding quantities of water until well after fire is out. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

6. Accidental Release Measures

Personal Precautions

Non-emergency personnel: Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep unnecessary personnel away. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors or mists. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

Emergency personnel: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate personal protection.

Clean-Up Methods

Small spills (uncured):	Wipe up with absorbent material (e.g. cloth, fleece). Place in leak-proof containers. Seal tightly for proper disposal. Clean surface thoroughly to remove residual contamination.
Large spills (uncured):	Stop the flow of material, if possible without risk. Dike far ahead of spill to contain material. Use a non-combustible material like vermiculite, sand or earth to soak up the product. Place in leak-proof containers. Seal tightly for proper disposal. Following product recovery, flush area with water.
Cured Material:	Chip or grind off surface. If you are grinding or cutting cured product, ensure good work practice and use of personal protective equipment as needed to control exposure to respirable dust.

Environmental Precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses or onto the ground.

7. Handling and Storage

Handling

Wear appropriate personal protective equipment. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Avoid prolonged exposure. Provide adequate ventilation. Avoid breathing fumes or vapors. When in use do not eat, drink, or smoke. Wash thoroughly after handling. Wash contaminated clothing before reuse. Avoid contact during pregnancy/while nursing. Observe good industrial hygiene practices. Do not empty into drains, avoid release to the environment.

Storage

Store locked up. Store in a closed container away from incompatible materials. Keep in original container, keep container tightly closed. Store in a cool, dry place out of direct sunlight. Keep away from heat and sources of ignition. Protect from physical damage.

8. Exposure Controls / Personal Protection

Personal Protective Equipment

Protective Measure:	Wear appropriate personal protective equipment.
Eye Protection:	Wear chemical splash goggles or safety glasses with side shield. Face shield is recommended when splashing is probable.
Hand Protection:	Wear chemical-resistant gloves such as: Nitrile, neoprene, or butyl rubber.
Skin and Body Protection:	Avoid contact with skin, wear long sleeve shirt/long pants and other clothing as required to minimize contact.
Respirator Protection:	If engineering controls do not maintain airborne concentrations below recommended exposure limits, or if discomfort is experienced, an approved respirator should be worn.
General Hygiene:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

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Engineering Controls

Mechanical ventilation or local exhaust ventilation is recommended, ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and emergency shower.

Exposure Limits

Component	Australia National Workplace OELs	New Zealand Workplace Exposure Limits (WES)	United States ACGIH (TLV)
Benzyl Alcohol (CAS 100-51-6)	N/E	N/E	20 ppm (TWA)
Isophorone Diamine (CAS 2855-13-2)	N/E	N/E	10 ppm
Ethylenediamine (CAS 107-15-3)	10 ppm (TWA)	10 ppm (TWA)	10 ppm
Triethylenetetramine (CAS 112-24-3)	N/E	N/E	1 ppm

9. Physical and Chemical Properties

Physical State:	Liquid	Freezing/Melting Point:	N/E
Form:	Liquid	Boiling Point:	N/E
Color:	Dark Amber	Flash Point:	212°F (100°C)
Odor:	Ammonia	Evaporation Rate:	N/E
Odor Threshold:	N/E	Specific Gravity:	1.01
pH:	N/E	Viscosity:	N/E
Flammability:	N/E	U/L Flammability:	N/E
Vapor Pressure:	N/E	Vapor Density:	N/E
Solubility:	Slight	Kow:	N/E
Decomposition:	N/E	VOC (A+B+C):	2 g/L

10. Stability and Reactivity

Reactivity:	This product is stable and non-reactive under normal conditions.
Chemical Stability:	Stable under normal storage conditions.
Condition to Avoid:	High heat and open flame.
Substances to Avoid:	Oxidizing agents and acids.
Hazardous Reactions:	Hazardous polymerization will not occur.
Decomposition Products:	Carbon dioxide, carbon monoxide, oxides of nitrogen and other organic compounds.

11. Toxicological Information

Likely Routes of Exposure

Ingestion:	Harmful if swallowed. May cause severe irritation or burns to the gastrointestinal tract.
Inhalation:	May cause allergy or asthma symptoms if inhaled.
Skin contact:	Causes severe skin burns. Harmful in contact with skin. May cause an allergic skin reaction.
Eye contact:	Causes serious eye damage.
Symptoms:	Burns, redness, itching, tearing, swelling, and blurred vision. Shortness of breath, coughing, or respiratory irritation. Severe irritation or burns to the gastrointestinal tract and respiratory system.

Information on Toxicological Effects

Acute Effects

Toxicity: Harmful if swallowed. Harmful in contact with skin.

Component	Estimate
FX-70-6MP Component B Toxicity Estimate	
Acute, Oral, LD50	1263
Acute, Dermal, LD50	1870

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Component	Species	Test Result
Benzyl Alcohol (CAS 100-51-6)	Acute, Oral , LD50	Rat 1230 mg/kg
	Acute, Dermal , LD50	Rabbit 2000 mg/kg
Isophorone Diamine (CAS 2855-13-2)	Acute, Oral , LD50	Rat 1030 mg/kg
Triethylenetetramine (CAS 112-24-3)	Acute, Oral , LD50	Mouse 1716 mg/kg
	Acute, Dermal , LD50	Rabbit 1465 mg/kg
Bisphenol-A-Epichlorohydrin Epoxy Resin (CAS 25068-38-6)	Acute, Oral , LD50	Rat 11400 mg/kg
	Acute, Dermal , LD50	Rat 2000 mg/kg
Salicylic Acid (CAS 69-72-7)	Acute, Oral , LD50	Rat 891 mg/kg
	Acute, Dermal , LD50	Rat >2000 mg/kg
	Acute, Inhalation , LC50	Rat >0.9 mg/l, 1 hour
Ethylenediamine (CAS 107-15-3)	Acute, Oral , LD50	Rat 1200 mg/kg

Skin corrosion/irritation: Causes severe skin burns and eye damage.
Eye damage/eye irritation: Causes serious eye damage.
Respiratory sensitization: May cause allergy or asthma symptoms or breathing difficulties.
Skin sensitization: May cause skin sensitization by contact.
Aspiration hazard: No data available.
Specific target organ toxicity
Single exposure: No data available.

Chronic Effects

Germ cell mutagenicity: The available data does not indicate that any components of this product present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity: Component B contains a component suspected of causing cancer. FX-70-6MP Component C contains components that are listed carcinogens. These components are considered carcinogens only in their inhalable form. Due to the nature of this product, inhalation is highly unlikely. Exposure to respirable carcinogens is likely only when grinding or cutting cured product. Ensure good work practice and use of personal protective equipment as needed to control exposure to processing dust.
Reproductive toxicity: Not expected to cause reproductive or developmental effects.
Specific target organ toxicity
Repeated exposure: FX-70-6MP Component C contains components that may cause damage to the lungs. Due to the nature of this product, inhalation is highly unlikely. Exposure is likely only when grinding or cutting cured product. Ensure good work practice and use of personal protective equipment as needed to control exposure to processing dust.

Carcinogen / Reproductive Toxin / Mutagen Information					
Component	% In Blend (approx.)	IARC Monographs	NTP	ACGIH	Other
Naphthalene (CAS 91-20-3)	< 0.2	2B	ANTICIPATED	---	CA65
IARC: 1- Carcinogenic 2- Possibly carcinogenic 3 - Not classifiable as to carcinogenicity 4 - Probably not carcinogenic NTP: Known to be human carcinogen or Reasonably anticipated to be a human carcinogen ACGIH - A1 - Confirmed carcinogen A2 - Suspected carcinogen A3 - Animal carcinogen A4 - Not classified A5 - Not suspected CA65 - California Prop 65					

Further Information

Toxicological, ecotoxicological, physical, and chemical properties may not have been fully investigated. Hazard data above is estimated based on best available information. Some workers with certain pre-existing medical conditions such as: asthma, allergies, or impaired pulmonary and/or liver functions, or who may be particularly susceptible to this material, may be affected by exposure to this material.

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12. Ecological Information

General Information

Information given is based on data on the components and the ecotoxicology of similar products. The product is classified as toxic to aquatic life and harmful to aquatic life with long lasting effects. Avoid release to the environment.

Supporting Data

Component	Species	Test Result
Bisphenol-A-Epichlorohydrin Epoxy Resin (CAS 25068-38-6)	Aquatic , Fish, LC50	Salmo gairdneri
	Aquatic , Crustacea, EC50	Daphnia magna
		1.5 mg/l, 96 hours
Benzyl Alcohol (CAS 100-51-6)	Aquatic , Fish, LC50	Bluegill
	Aquatic , Crustacea, EC50	Daphnia magna
	Aquatic , Algae, EC50	Algae
Salicylic Acid (CAS 69-72-7)	Aquatic , Fish, LC50	10 mg/l, 96 hours
	Aquatic , Crustacea, EC50	23 mg/l, 48 hours
	Aquatic , Algae, EC50	35 mg/l, 3 hours
Isophorone diamine (CAS 2855-13-2)	Aquatic , Fish, LC50	Fathead minnow
	Aquatic , Crustacea, EC50	Daphnia magna
		1380 mg/l, 96 hours
Naphthalene (CAS 91-20-3)	Aquatic , Fish, LC50	870 mg/l, 48 hours
	Aquatic , Crustacea, EC50	>100 mg/l, 72 hours
	Aquatic , Algae, EC50	
Naphthalene (CAS 91-20-3)	Aquatic , Fish, LC50	110 mg/l, 96 hours
	Aquatic , Crustacea, EC50	23 mg/l, 48 hours
	Aquatic , Algae, EC50	2.82 mg/l, 96 hours
Naphthalene (CAS 91-20-3)	Aquatic , Fish, LC50	1.1-3.4 mg/l, 48 hours
	Aquatic , Crustacea, EC50	0.4 mg/l, 72 hours
	Aquatic , Algae, EC50	

Persistence and degradability: No data available.
Bioaccumulative potential: No data available for the product.

Chemical	Log Kow	BCF	Bioaccumulation Potential
BPA Epoxy Resin (CAS 25068-38-6)	2.64-3.78	3-31	low
Benzyl Alcohol (CAS 100-51-6)	1.1	---	---
Distillates (petroleum) (CAS 64742-94-5)	3.2-4.5	---	---
Salicylic Acid (CAS 69-72-7)	2	---	---
Naphthalene (CAS 91-20-3)	3.4	---	---

Mobility in soil: No data available.

Other Adverse Effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product.

13. Disposal Considerations

Waste Disposal of Substance: Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national regulations.

Container Disposal: Empty containers or liners may retain some product residues; follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Disposal of Cured Product: Chip or grind off surface. Solid material does not need special disposal consideration.

14. Transportation Information

UN number: UN2735
UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (Isophorone Diamine), 8, III, Marine Pollutant
Transportation Class: 8 (9)

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Precautions: Corrosive, Marine Pollutant
Packing Group: III
Environment Hazard: Yes
Required Labels: 8
ERG Code (IATA): 8L
EmS (IMDG): F-A, S-B

Additional Information

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

This information does not cover all specific regulatory or operational requirements of this product. The classifications for transportation may vary by container volume or different regional or national regulations.

15. Regulatory Information

United States

Federal Regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA (Toxic Substances Control Act): All components are on the TSCA inventory.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4):

Naphthalene (CAS 91-20-3)	LISTED
Ethylenediamine (CAS 107-15-3)	LISTED

Australia

This SDS was prepared following the Code of Practice: Preparation of Safety Data Sheets for Hazardous Chemicals from Work Safe Australia. This product has been classified according to the hazard criteria of GHS and contains all of the information required by WHS.

Australian Inventory of Chemical Substances (AICS)	
Chemical	Registration Status
Benzyl Alcohol (CAS 100-51-6)	Hazardous Substance IMAP – Tier II – Human Health
Solvent naphtha (pet.), heavy aromatic (CAS 64742-94-5)	Hazardous Substance IMAP – Tier II – Human Health
Triethylenetetramine (CAS 112-24-3)	Hazardous Substance IMAP – Tier II – Human Health
Isophorone Diamine (CAS 2855-13-2)	Hazardous Substance IMAP – Tier II – Human Health
Bisphenol-A Based Epoxy Resin (CAS 25068-38-6)	Hazardous Substance IMAP – Tier II – Human Health
Naphthalene (CAS 91-20-3)	Hazardous Substance IMAP – Tier II – Human Health
Ethylenediamine (CAS 107-15-3)	Hazardous Substance IMAP – Tier II – Human Health

New Zealand

New Zealand Code of Practice for the Preparation of Safety Data Sheets (SDS) [No. HSNO CoP 8-1 09-06].
 Classified as hazardous according to the Hazardous Substances (minimum Degrees of Hazard) Regulations 2001.

New Zealand Inventory of Chemicals (NZIoC)	
Chemical	Registration Status
Benzyl Alcohol (CAS 100-51-6)	HSNO Approved (HSR001039)

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Solvent naphtha (pet.), heavy aromatic (CAS 64742-94-5)	May be used as a single component under an appropriate group standard.
Triethylenetetramine (CAS 112-24-3)	HSNO Approved (HSR003570)
Isophorone Diamine (CAS 2855-13-2)	HSNO Approved (HSR003899)
Bisphenol-A Based Epoxy Resin (CAS 25068-38-6)	HSNO Approved (HSR003757)
Naphthalene (CAS 91-20-3)	HSNO Approved (HSR001287)
Ethylenediamine (CAS 107-15-3)	HSNO Approved (HSR002991)

South Africa National Regulations

Simpson Strong-Tie South Africa is a subsidiary of Simpson Strong-Tie Australia and relies on the parent company to support many of the services it provides, one of these services is Safety Data Sheets (SDS). This SDS contains all of the relevant information required for the South African market, with the exception of the following information.

Local contact information for South African Poisons Centre – Phone: 0219 316129 or 021 6895227

Local Contact for Simpson Strong-Tie who has access to the SDS sheets - Houston Hank – Phone: 0873 540629

REGISTERED OFFICE: Unit 5, Fairway Business Park, Stibitz Street
Westlake Business Park, Westlake 7945
Cape Town, Western Province

POSTAL ADDRESS: PO Box 281 Bergvliet 7864

PHONE: 0873540629

DIRECTORS: Brian Magstadt & Herbert Kuhn

REGISTRATION #: 2012/052288/07

VAT #: 4190262362

International

This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work.

REACH Registered Substances			
Chemical	CAS Number	EC Number	Index Number
Benzyl Alcohol	100-51-6	202-859-9	603-057-00-5
Triethylenetetramine	112-24-3	203-950-6	612-059-00-5
Isophorone Diamine	2855-13-2	220-666-8	612-067-00-9
Bisphenol-A-Epichlorohydrin Epoxy Resin	25068-38-6	500-033-5	603-074-00-8
Distillates (petroleum), heavy aromatic	64742-94-5	265-198-5	649-424-00-3
Naphthalene	91-20-3	202-049-5	601-052-00-2
Ethylenediamine	107-15-3	203-468-6	612-006-00-6

This product is not subject to or not applicable for any of the following International Regulations: **Stockholm Convention, Rotterdam Convention, Kyoto Protocol, Montreal Protocol, Basel Convention.**

International Inventories

Australia	One or more components of this product are not listed on the Australian Inventory of Chemical Substances (AICS).
Canada	All components of this product are included on the Domestic Substances List (DSL).
China	One or more components of this product have an unknown status on the Inventory of Existing Chemical Substances in China (IECSC). Contact Simpson Strong-Tie Environmental Health and Safety if the status of this product on the inventory is desired.

Europe	One or more components of this product have an unknown status on the European Inventory of Existing Commercial Chemical Substances (EINECS). Contact Simpson Strong-Tie Environmental Health and Safety if the status of this product on the inventory is desired.
Japan	One or more components of this product have an unknown status on the Inventory of Existing and New Chemical Substances (ENCS). Contact Simpson Strong-Tie Environmental Health and Safety if the status of this product on the inventory is desired.
Korea	One or more components of this product have an unknown status on the Existing Chemicals List (ECL). Contact Simpson Strong-Tie Environmental Health and Safety if the status of this product on the inventory is desired.
New Zealand	One or more components of this product have an unknown status on the New Zealand Inventory. Contact Simpson Strong-Tie Environmental Health and Safety if the status of this product on the inventory is desired.
Philippines	One or more components in this product have an unknown status on the Philippine Inventory of Chemicals and Chemical Substances (PICCS). Contact Simpson Strong-Tie Environmental Health and Safety if the status of this product on the inventory is desired.
United States & Puerto Rico	All components of this product are listed on the Toxic Substances Control Act (TSCA) Inventory or are not required to be listed.

16. Other Information

Date Prepared or Revised: March 2017
Supersedes: February 2016

Contact Simpson Strong-Tie Environmental Health and Safety at EHS@strongtie.com.

Abbreviations

ACGIH:	American Conference of Governmental Industrial Hygienists
CAS No.:	Chemical Abstract Service Registry Number
CERCLA:	Comprehensive Environmental Response, Compensation and Liability Act (U.S. EPA)
HPR:	Hazardous Product Regulations (Canada)
EPA:	Environmental Protection Agency (U.S.)
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
IATA:	International Air Transport Association
IMDG:	International Maritime Dangerous Goods code
NIOSH:	National Institute of Occupational Safety and Health (U.S.)
NFPA:	National Fire Protection Association (US)
NTP:	National Toxicology Program (US)
PEL:	Permissible Exposure Limit
SARA:	Superfund Amendments and Reauthorization Act (U.S. EPA)
STEL:	Short Term Exposure Limit (15 minute Time Weighted Average)
STOT:	Specific Target Organ Toxicity (GHS Classification)
TLV:	Threshold Limit Value
TSCA:	Toxic Substances Control Act (U.S.)
TWA:	Time Weighted Average (exposure for 8-hour workday)
VOC:	Volatile Organic Compounds
WHMIS:	Canadian Workplace Hazardous Materials Information System

Full Text of H – Phrases Under Section 3

H226:	Flammable liquid and vapor.
H302:	Harmful if swallowed.
H304:	May be fatal if swallowed and enters airways.
H312:	Harmful in contact with skin.
H314:	Causes severe skin burns and eye damage.
H315:	Causes skin irritation.
H317:	May cause an allergic skin reaction.
H318:	Causes severe eye damage.

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H319:	Causes serious eye irritation.
H332:	Harmful if inhaled.
H334:	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H351:	Suspected of causing cancer.
H400:	Very toxic to aquatic life.
H410:	Very toxic to aquatic life with long lasting effects.
H411:	Toxic to aquatic life with long lasting effects.
H412:	Harmful to aquatic life with long lasting effects.

Disclaimer

Safety Data Sheet (SDS) is prepared by Simpson Strong-Tie Co. in compliance with the requirements of OSHA 29 CFR Part 1910.1200. The information it contains is offered in good faith as accurate as of the date of this SDS. This SDS is provided solely for the purpose of conveying health, safety, and environmental information. No warranty, expressed or implied, is given. Health and Safety precautions may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations.

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FX-70-6MP™ Multi-Purpose Marine Epoxy Grout

SAFETY DATA SHEET

SIMPSON
Strong-Tie

1. Identification

Product Identification

Product Identifier: **C Component FX-70-6MP™**
FX-70-6MP™ is a multi-purpose, three-component marine epoxy grout for underwater repair application as part of the FX-70® Structural Repair and Protection System.

Use Restrictions: For industrial use only. To ensure proper installation, use according to package directions. Complete application instructions can be found in Simpson Strong-Tie catalogs or online at strongtie.com.

Company Identification

Company: Simpson Strong-Tie Australia Pty Limited
Address: Unit 1/16 Kenoma Place
Arndell Park, NSW 2148
Australia
Phone: +612 9831 7700
Website: www.strongtie.com.au
Emergency: 13 11 26

Company: Simpson Strong-Tie New Zealand
Address: 52 A Arrenway Drive
Albany, Auckland 0632
New Zealand
Phone: +64 9 477 4440
Website: www.strongtie.co.nz
Emergency: 0800 POISON (0800 764 766)

2. Hazard Identification

General Information

FX-70-6MP™ is a 100% solids, three part system (2A:1B mix). It is high-strength epoxy grout repair mortar resistant to the chemical and physical strains of a marine environment. FX-70-6MP™ is moisture-tolerant and specifically designed for underwater applications as part of the FX-70® Structural Repair and Protection System. The three parts of this product have been individually assessed according to the Globally Harmonized System (GHS). The mixed product can be assumed to carry the hazards of each component until the product has been fully cured. The final cured product will be dark tan in color and can be considered nonhazardous. This Safety Data Sheet covers hazards and responses for Component C. See Component A and Component B Safety Data Sheets for complete product information. The product should be mixed thoroughly with a low speed drill. CAUTION: Product mixing may produce heat, wear appropriate personal protective equipment and handle mixed material with caution.

Component C GHS Classification

Classification according to HazCom2012 (GHS)

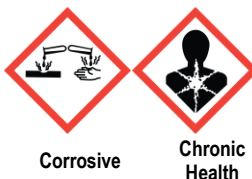
Physical Hazards:	Not Classified.		
Health Hazards:	Serious Eye Damage/Irritation	Category 1	H318: Causes severe eye damage
	Carcinogenicity	Category 1A	H350: May cause cancer
	STOT, Repeated Exposure	Category 2	H373: May cause damage to organs (lungs)
Environmental Hazards:	Not Classified.		

Main Symptoms: Damage to the eyes. Symptoms include redness, itching, burning, tearing, swelling, and blurred vision. Long term exposure may cause chronic effects.

New Zealand Hazardous Substances and New Organisms Classification

8.3A – Serious Eye Damage/Eye Irritation; 6.7A – Carcinogenicity; 6.9B – STOT, Repeated Exposure

GHS Label Elements



Contains: Crystalline Silica (Quartz), Fly Ash, Barium Sulfate
Signal Word: **DANGER!**
Hazard Statements: H318: Causes severe eye damage.
H350: May cause cancer.

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Precautionary Statements:	H373:	Causes damage to organs (lungs) through prolonged or repeated exposure.
	P201:	Obtain special instructions before use.
Prevention:	P202:	Do not handle until all safety precautions have been read and understood.
	P260:	Do not breathe dust.
Response:	P264:	Wash hands thoroughly after handling.
	P271:	Use only outdoors or in a well-ventilated area.
Storage:	P280:	Wear protective gloves/protective clothing/eye protection/face protection.
	P304+P340:	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Disposal:	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.
Disposal:	P337+P313:	If eye irritation persists: Get medical advice/attention.
	P308+P313:	If exposed or concerned: Get medical advice/attention.
Disposal:	P312:	Call a POISON CENTER/doctor if you feel unwell.
	P403+P233+P235:	Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Disposal:	P405:	Store locked up.
	P501:	Dispose of contents/container in accordance with local/regional regulations.

Supplemental Label Information: None known.

Hazards Not Otherwise Classified (HNOC)

The above hazards are for the uncured C component of FX-70-6MP. Upon combination with the A and B component, an innocuous solid is formed, which does not present any immediate hazards. Upon grinding or cutting through the cured product, the following hazards may apply. Ensure that good work practices, and the necessary precautionary measures, are taken to maintain safe use of the product.

Hazard Statement: Can form explosive air-dust mixtures, avoid creating dust.

Precautionary Statement: Do not allow dust to build up on surfaces.

3. Composition Information

General Information

This product is a mixture. Hazardous ingredients for each component are listed below. May include other nonhazardous ingredients. May include other trace ingredients, see Section 15.

List of abbreviations and symbols:

Classification: Global Harmonized System Classifications

The full text for H-phrases is displayed in section 16. All concentrations are in percent by weight unless otherwise noted.

Composition – All concentrations are in percent by weight unless otherwise indicated.

Chemical Name	Weight %	CAS Number	EC Number
Crystalline Silica, Quartz	50-70	14808-60-7	238-878-4
Classifications: Carc. 1A: H350, STOT RE 2: H373			
Fly Ash	20-30	68131-74-8	268-627-4
Classifications: Eye Corr. 1: H318, Carc. 1A: H350			
Barium Sulfate	5-15	7727-43-7	231-784-4
Classifications: None.			

4. First-Aid Measures

General Information

Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse.

Routes of Exposure

Eye Contact: Flush eyes with plenty of cool water for at least 15 minutes while holding the eyes open. Remove contact lenses if present and easy to do. If you experience redness, burning, blurred vision, or swelling, **consult a physician immediately.**

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Skin Contact:	Remove contaminated clothing and product; wash affected area with soap and water. Do not apply greases or ointments. If rash or irritation occurs consult a physician .
Ingestion:	Rinse mouth. Do not induce vomiting. Consult a physician .
Inhalation:	Remove patient to fresh air. Give oxygen or artificial respiration if needed. If patient continues to experience difficulty breathing, consult a physician .

Most Important Symptoms

Damage to the eyes. Symptoms include redness, itching, burning, tearing, swelling, and blurred vision. Permanent eye damage including blindness could result.

5. Fire-Fighting Measures

Suitable Extinguishing Media:	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Additional Information:	Can form explosive air-dust mixtures, avoid creating dust.
Hazards during Fire-Fighting:	During a fire, gases hazardous to health may be formed.
Fire-Fighting Procedures:	Use standard fire-fighting procedures and consider the hazards of other involved materials. In case of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn. Move containers from fire area if you can do so without risk. Cool containers with flooding quantities of water until well after fire is out. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

6. Accidental Release Measures

Personal Precautions

Non-emergency personnel: Avoid generating dust. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of dust. Ensure adequate ventilation. If the concentration of dust exceeds the permissible exposure limit wear a respirator. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep unnecessary personnel away. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Local authorities should be advised if significant spillages cannot be contained.

Emergency personnel: Keep unnecessary personnel away. Wear appropriate personal protective equipment.

Clean-Up Methods

Small spills (not set):	Avoid dry sweeping. Do not use compressed air to clean spilled silica sand. Use damp towel to wipe up small spills. Dispose of in closed containers.
Large spills (not set):	Avoid dry sweeping. Do not use compressed air to clean spilled silica sand. Use water spraying/flushing or ventilated or HEPA filtered vacuum cleaning system. Dispose of in closed containers.
Set Material:	Chip or grind off. If you are grinding or cutting cured product, ensure good work practice and use of personal protective equipment as needed to control exposure to respirable dust.

Environmental Precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so.

7. Handling and Storage

Handling

Avoid generating dust. Mechanical ventilation or local exhaust ventilation is recommended. Use all available work practices to control dust exposure, such as water sprays. Wear appropriate personal protective equipment. When using, do not eat, drink or smoke. Avoid contact with eyes, skin, and clothing. Do not breathe dust. Keep airborne dust concentrations below permissible exposure limits. Wear a respirator if silica dust concentrations exceed PEL. Do not permit dust to collect and build up on work surfaces, use good housekeeping. Observe good industrial hygiene practices.

Storage

Use dust collection to trap dust produced during loading and unloading. Store in a closed container away from incompatible materials (See Section 10 of the SDS). Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Protect against physical damage.

8. Exposure Controls / Personal Protection

Personal Protective Equipment

Protective Measure:	Wear appropriate personal protective equipment.
Eye Protection:	Wear chemical splash goggles or safety glasses with side shield.
Hand Protection:	Wear chemical-resistant gloves such as: Nitrile, neoprene, butyl.

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- Skin and Body Protection:** Wear long sleeve shirt/long pants and other clothing as required to minimize contact. In case of dust production dust-proof clothing. Avoid contact with unhardened cement products, if contact occurs wash immediately with soap and water.
- Respirator Protection:** Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of dust are expected to exceed exposure limits.
- General Hygiene:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Engineering Controls

Mechanical ventilation or local exhaust ventilation is recommended. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and emergency shower.

Exposure Limits

Component	Australia National Workplace OELs	New Zealand Workplace Exposure Limits (WES)	United States ACGIH (TLV)
Barium Sulfate (CAS 7727-43-7)	10 mg/m ³ (TWA)	10 mg/m ³ (TWA)	10 mg/m ³
Quartz (CAS 14808-60-7)	0.1 mg/m ³ (TWA)	0.1 mg/m ³ (TWA)	0.025 mg/m ³ (respirable)
Fly Ash (CAS 68131-74-8)	N/E	N/E	5 mg/m ³ (respirable)

9. Physical and Chemical Properties

Physical State:	Solid	Freezing/Melting Point:	N/E
Form:	Powder	Boiling Point:	N/E
Color:	Tan	Flash Point:	N/A
Odor:	Characteristic	Evaporation Rate:	N/A
Odor Threshold:	N/E	Specific Gravity:	2.6
pH:	N/E	VOC (A+B+C):	2 g/L
Flammability:	N/A	U/L Flammability:	N/A
Vapor Pressure:	N/A	Vapor Density:	N/A
Solubility:	Slight	Kow:	N/A
Decomposition:	N/E	Viscosity:	N/A

10. Stability and Reactivity

Reactivity:	Stable and non-reactive under normal conditions of use and storage.
Chemical Stability:	Stable and non-reactive under normal conditions of use and storage.
Condition to Avoid:	Conditions which generate dust.
Substances to Avoid:	Hydrofluoric acid, fluorine, chlorine trifluoride, or oxygen difluoride.
Hazardous Reactions:	The product is stable if stored and handled as prescribed/indicated.
Decomposition Products:	None.

11. Toxicological Information

Likely Routes of Exposure

Ingestion:	Expected to be a low ingestion hazard.
Inhalation:	Irritation to nose and respiratory tract.
Skin contact:	Not expected to be a skin irritant.
Eye contact:	Causes serious eye damage. Particles can cause corneal abrasion.
Symptoms:	Redness, itching, burning, tearing, swelling, and blurred vision.

Information on Toxicological Effects

Acute Effects

Toxicity:	Not expected to be acutely toxic. Occupational exposure to the substance or mixture may cause adverse effects.
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Component	Estimate
FX-70-6MP Component C Toxicity Estimate	
Acute, Oral, LD50	4332

Component	Species	Test Result
Fly Ash (CAS 68131-74-8)		
Acute, Oral, LD50	Rat	> 2000 mg/kg
Quartz (CAS 14808-60-7)		
Acute, Oral, LD50	Rat	22500 mg/kg

Skin corrosion/irritation: Not expected to be a skin irritant.
Eye damage/eye irritation: Causes serious eye damage.
Respiratory sensitization: Not a respiratory sensitizer.
Skin sensitization: Not a skin sensitizer.
Aspiration hazard: No data available.
Specific target organ toxicity Single Exposure: No data available.

Chronic Effects

Germ cell mutagenicity: No data available.
Carcinogenicity: May cause cancer. This product contains components that are listed carcinogens. These components are considered carcinogens only in their inhalable form. Exposure to respirable carcinogens is also likely when grinding or cutting cured product. Ensure good work practice and use of personal protective equipment as needed to control exposure to processing dust.
Reproductive toxicity: No data available.

Specific target organ toxicity Repeated Exposure: Causes damage to organs (lungs) through prolonged or repeated exposure (inhalation). Repeated or prolonged exposure to respirable silica dust will cause lung damage in the form of silicosis. Symptoms include progressively more difficult breathing, cough, fever, and weight loss. Acute silicosis can be fatal.

Carcinogen / Reproductive Toxin / Mutagen Information					
Component	% In Blend (approx.)	IARC Monographs	NTP	ACGIH	Other
Quartz (CAS 14808-60-7)	50-70	1	KNOWN	A2	CA65
IARC: 1- Carcinogenic 2- Possibly carcinogenic 3 - Not classifiable as to carcinogenicity 4 - Probably not carcinogenic NTP: Known to be human carcinogen or Reasonably anticipated to be a human carcinogen ACGIH - A1 - Confirmed carcinogen A2 - Suspected carcinogen A3 - Animal carcinogen A4 - Not classified A5 - Not suspected CA65 - California Prop 65					

Further Information

Toxicological, ecotoxicological, physical, and chemical properties may not have been fully investigated. Hazard data above is estimated based on best available information. Some workers with certain pre-existing medical conditions such as: asthma, allergies, or impaired pulmonary and/or liver functions, or who may be particularly susceptible to this material, may be affected by exposure to this material.

12. Ecological Information

General Information

Information given is based on data on the components and the ecotoxicology of similar products. This material is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Supporting Data

Component	Species	Test Result
Barium Sulfate (CAS 7727-43-7)		
Aquatic, Crustacea, EC50	Tubificid worm	28.61-38.03 mg/l, 48 hours

Persistence and degradability: Not readily biodegradable.
Bioaccumulative potential: Not expected to bioaccumulate.

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Mobility in soil: No data available.

Other Adverse Effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product.

13. Disposal Considerations

Waste Disposal of Substance: Do not allow material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Container Disposal: Empty containers or liners may retain some product residues; follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Disposal of Cured Product: Chip or grind off surface. Solid material does not need special disposal consideration.

14. Transportation Information

DOT: FX-70-6MP Component C is not regulated for transport.

IMDG/IATA: FX-70-6MP Component C is not regulated for transport.

Additional Information

Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

This information does not cover all specific regulatory or operational requirements of this product. The classifications for transportation may vary by container volume or different regional or national regulations.

15. Regulatory Information

United States

Federal Regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4): Not listed.

Australia

This SDS was prepared following the Code of Practice: Preparation of Safety Data Sheets for Hazardous Chemicals from Work Safe Australia. This product has been classified according to the hazard criteria of GHS and contains all of the information required by WHS.

Australian Inventory of Chemical Substances (AICS)	
Chemical	Registration Status
Crystalline Silica, Quartz (CAS 14808-60-7)	Hazardous Substance IMAP – Tier II – Human Health
Fly Ash (CAS 68131-74-8)	Hazardous Substance
Barium Sulfate (CAS 7727-43-7)	Hazardous Substance IMAP – Tier I – Human Health

New Zealand

New Zealand Code of Practice for the Preparation of Safety Data Sheets (SDS) [No. HSNO CoP 8-1 09-06].
Classified as hazardous according to the Hazardous Substances (minimum Degrees of Hazard) Regulations 2001.

New Zealand Inventory of Chemicals (NZIoC)	
Chemical	Registration Status
Crystalline Silica, Quartz (CAS 14808-60-7)	HSNO Approved (HSR003125)
Fly Ash (CAS 68131-74-8)	May be used as a single component under an appropriate group standard.
Barium Sulfate (CAS 7727-43-7)	May be used as a single component under an appropriate group standard.

South Africa National Regulations

Simpson Strong-Tie South Africa is a subsidiary of Simpson Strong-Tie Australia and relies on the parent company to support many of the services it provides, one of these services is Safety Data Sheets (SDS). This SDS contains all of the relevant information required for the South African market, with the exception of the following information.

Local contact information for South African Poisons Centre – Phone: 0219 316129 or 021 6895227

Local Contact for Simpson Strong-Tie who has access to the SDS sheets - Houston Hank – Phone: 0873 540629

REGISTERED OFFICE: Unit 5, Fairway Business Park, Stibitz Street
Westlake Business Park, Westlake 7945
Cape Town, Western Province
POSTAL ADDRESS: PO Box 281 Bergvliet 7864
PHONE: 0873540629
DIRECTORS: Brian Magstadt & Herbert Kuhn
REGISTRATION #: 2012/052288/07
VAT #: 4190262362

International

The product is classified and labeled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

This product is not subject to or not applicable for any of the following International Regulations; **Stockholm Convention, Rotterdam Convention, Kyoto Protocol, Montreal Protocol, Basel Convention.**

International Inventories

Australia	All component of this product are listed on the Australian Inventory of Chemical Substances (AICS).
Canada	All components of this product are included on the Domestic Substances List (DSL).
China	All components of this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).
Europe	All components of this product are included on the European Inventory of Existing Commercial Chemical Substances (EINECS) or are exempt from listing.
Japan	All components of this product are listed on the Inventory of Existing and New Chemical Substances (ENCS).
Korea	All components of this product are included on the Existing Chemicals List (ECL).
New Zealand	All components of this product are included on the New Zealand Inventory.
Philippines	All components in this product are listed in the Philippine Inventory of Chemicals and Chemical Substances (PICCS).
United States	All components of this product are listed on the Toxic Substances Control Act (TSCA) Inventory or are not required to be listed.

16. Other Information

Date Prepared or Revised: March 2017
Supersedes: February 2016

Contact Simpson Strong-Tie Environmental Health and Safety at EHS@strongtie.com.

Abbreviations

ACGIH: American Conference of Governmental Industrial Hygienists
CAS No.: Chemical Abstract Service Registry Number
CERCLA: Comprehensive Environmental Response, Compensation and Liability Act (U.S. EPA)
HPR: Hazardous Product Regulations (Canada)
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
HMIS: Hazardous Materials Identification System
IARC: International Agency for Research on Cancer

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IATA:	International Air Transport Association
IMDG:	International Maritime Dangerous Goods code
NIOSH:	National Institute of Occupational Safety and Health (U.S.)
NFPA:	National Fire Protection Association (US)
NTP:	National Toxicology Program (US)
PEL:	Permissible Exposure Limit
SARA:	Superfund Amendments and Reauthorization Act (U.S. EPA)
STOT:	Specific Target Organ Toxicity (GHS Classification)
TLV:	Threshold Limit Value
TSCA:	Toxic Substances Control Act (U.S.)
TWA:	Time Weighted Average (exposure for 8-hour workday)
VOC:	Volatile Organic Compounds
WHMIS:	Canadian Workplace Hazardous Materials Information System

Full Text of H – Phrases Under Section 3

H318:	Causes severe eye damage.
H335:	May cause respiratory irritation.
H350:	May cause cancer.
H373:	May cause damage to organs through prolonged or repeated exposure.

Disclaimer

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