

FLEXTILE LTD
Material Safety Data Sheet
FLEXTILE ULTRA-PERFORMANCE CAULK

Section 1 - Chemical Product and Company Identification

MANUFACTURER:	FLEXTILE LTD.	
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PRODUCT IDENTIFIER.....	FLEXTILE ULTRA-PERFORMANCE CAULK	

Section 2 - Hazards Identification

Emergency Overview
Product may burn. May cause skin, eye and respiratory tract irritation.

Potential Health Effects: Eyes
Short term exposure: irritation, pain, reddening, tearing. Long term exposure: same as effects reported in short term exposure.

Potential Health Effects: Skin
Short term exposure: absorption may occur, central nervous system effects irritation, headache, dizziness, drowsiness, loss of coordination, sensitization, and allergic reactions. Long term exposure: same as effects reported in short term exposure

Potential Health Effects: Ingestion
Short term exposure: irritation, stomach pain, vomiting. Long term exposure: same as effects reported in short term exposure.

Potential Health Effects: Inhalation
Short term exposure: irritation, coughing, sneezing, central nervous system effects, dizziness, nausea, loss of coordination, vomiting. Long term exposure: same as effects reported in short term exposure

HMIS Ratings: Health: 2 Fire: 1 HMIS Reactivity 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

Section 3 - Composition / Information on Ingredients

CAS #	Component
471-34-1	Carbonic acid, calcium salt (1:1)
13463-67-7	Titanium dioxide
67-66-3	Chloroform
107-13-1	Acrylonitrile
108-10-1	Methylisobutyl ketone
122-60-1	Phenyl glycidyl ether
140-88-5	Ethyl acrylate
106-89-8	Epichlorohydrin
67-56-1	Methyl alcohol

Section 4 - First Aid Measures

First Aid: Eyes
Flush eyes with plenty of water for at least 20 minutes. Call 911 or emergency medical services.

First Aid: Skin
Wash skin with soap and water for at least 20 minutes. Remove and isolate contaminated clothing and shoes. Call 911 or emergency medical services.

First Aid: Ingestion
If a large amount is swallowed, Call 911 or emergency medical services.

First Aid: Inhalation
If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Administer oxygen if breathing is difficult. Call 911 or emergency medical services.

Section 5 - Fire Fighting Measures

General Fire Hazards
See Section 9 for Flammability Properties.
Slight fire hazard.

Hazardous Combustion Products

Thermal decomposition products: oxides of carbon, oxides of nitrogen, aldehydes, various polymer compounds.

Extinguishing Media

Dry chemical, carbon dioxide, water spray, regular foam

Fire Fighting Equipment/Instructions

Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

NFPA Ratings: Health: 2 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Section 6 - Accidental Release Measures

Containment Procedures

Stop leak if possible without personal risk.

Clean-Up Procedures

Small spills: Absorb with sand or other non-combustible material and place material into appropriate containers for later disposal. Large spills: Dike far ahead of liquid spill for later disposal. Prevent entry into waterways, sewers, basements or confined areas.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

Special Procedures

None

Section 7 - Handling and Storage

Handling Procedures

Empty containers may contain residual liquid; therefore, empty containers should be handled with care.

Storage Procedures

Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.106. Store in a tightly closed container. Store in a cool, dry, place. Protect from direct sunlight, heat, or freezing. Material should be stored in appropriate secondary containers or in a diked area. Inspect all incoming containers before storage to ensure containers are properly labeled and not damaged. Keep separated from incompatible substances.

Section 8 - Exposure Controls / Personal Protection

Component Exposure Limits

Carbonic acid, calcium salt (1:1) (471-34-1)

NIOSH: 10mg/m³ TWA (Total Dust); 5mg/m³ (Respirable dust)

Titanium Dioxide (13463-67-7)

ACGIH: 10mg/m³ TWA

OSHA: 10mg/m³ TWA (Total Dust)

Methylisobutyl Ketone (108-10-1)

ACGIH: 50 ppm TWA

75 ppm STEL

OSHA: 50 ppm TWA; 205 mg/m³ TWA

75 ppm STEL; 300 mg/m³ STEL

NIOSH: 50 ppm TWA; 205 mg/m³ TWA

75 ppm STEL; 300 mg/m³ STEL

Phenyl glycidyl ether (122-60-1)

ACGIH: 0.1 ppm TWA

Skin – potential significant contribution to overall exposure by the cutaneous route

OSHA: 1 ppm TWA; 6 mg/m³ TWA

NIOSH: 1 ppm Ceiling (15 min); 6 mg/m³ Ceiling (15 min)

Epichlorohydrin (106-89-8)

ACGIH: 0.5 ppm TWA

Skin – potential significant contribution to overall exposure by the cutaneous route

OSHA: 2 ppm TWA; 8 mg/m³ TWA

Prevent or reduce skin absorption

Ethyl acrylate (140-88-5)

ACGIH: 5 ppm TWA

15 ppm STEL

OSHA: 5 ppm TWA; 20 mg/m³ TWA

25 ppm STEL; 100 mg/m³ STEL

Prevent or reduce skin absorption

Acrylonitrile (107-13-1)

ACGIH: 2 ppm TWA

Skin – potential significant contribution to overall exposure by the cutaneous route
OSHA: 1 ppm Action Level; 2 ppm TWA; 10 ppm Excursion Limit (15 min, Skin and eye exposure prohibited. Cancer hazard – see 29 CFR 1901.1045)

Methyl alcohol (67-56-1)

ACGIH: 200 ppm TWA

250 ppm STEL

Skin – potential significant contribution to overall exposure by the cutaneous route

OSHA: 200 ppm TWA; 260 mg/m³ TWA

250 ppm STEL; 325 mg/m³ STEL

Prevent or reduce skin absorption

NIOSH: 200 ppm TWA; 260 mg/m³ TWA

250 ppm STEL; 325 mg/m³ STEL

Potential for dermal absorption

Chloroform (67-66-3)

ACGIH: 10 ppm TWA

OSHA: 2 ppm TWA; 9.78 mg/m³ TWA

NIOSH: 2 ppm STEL(60 min); 9.78 mg/m³ STEL (60 min)

Engineering Controls

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear splash resistant safety glasses with side-shields. In cases of heavy use or splattering, additional protection, such as a face-shield may be worn.

Personal Protective Equipment: Skin

Wear appropriate chemical resistant gloves and clothing.

Personal Protective Equipment: Respiratory

Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use. Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode. Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

Personal Protective Equipment: General

Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Section 9 - Physical & Chemical Properties

Appearance:	Various colors	Odor:	none
Physical State:	Paste	pH:	ND
Vapor Pressure:	NA	Vapor Density:	NA
Boiling Point:	NA	Melting Point:	NA
Solubility (H ₂ O):	Negligible	Specific Gravity:	1-1.6
Evaporation Rate:	NA	VOC:	0 gm/L
Percent Volatile:	<10	Octanol/H ₂ O Coeff.:	ND
Flash Point:	200°C (392°F)	Flash Point Method:	estimate
Upper Flammability Limit (UFL):	ND	Lower Flammability Limit (LFL):	ND
Burning Rate:	ND	Auto Ignition:	ND

Section 10 - Chemical Stability & Reactivity Information

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

Incompatibility

Oxidizing materials, acids, amines, strong caustics, water

Hazardous Decomposition

Thermal decomposition products: oxides of carbon, oxides of nitrogen, aldehydes, various polymer compounds.

Possibility of Hazardous Reactions

Will not occur.

Acute Dose Effects

A: General Product Information

INHALATION:

Acute exposure: May cause irritation to the mucous membranes and upper respiratory tract. Symptoms may include coughing, and sneezing. May cause central nervous system effects with headache, dizziness, drowsiness, and loss of coordination.

SKIN CONTACT:

Acute exposure: Skin contact may cause sensitization and allergic reaction in sensitive individuals. Symptoms can include itching, welts and redness. Prolonged contact with the skin may cause dermatitis, with symptoms of inflammation and reddening of the skin. The Diisodecyl Phthalate component can be absorbed via intact skin and may cause central nervous system depression if a large area of the skin is involved.

EYE CONTACT:

Acute exposure: Contact with the eyes may cause mild irritation, pain, reddening, and watering

INGESTION:

Acute exposure: Ingestion is not anticipated to be a likely route of exposure to this product. If large quantities of this product are swallowed, irritation of the mouth, throat, esophagus, and other tissues of the digestive system may occur. Symptoms may include stomach pains and vomiting.

B: Component Analysis - LD₅₀/LC₅₀

Carbonic acid, calcium salt (1:1) (471-34-1)

Oral LD₅₀ Rat: 6450 mg/kg

Titanium dioxide (13463-67-7)

Oral LD₅₀ Rat: >1000 mg/kg

Methylisobutyl Ketone (108-10-1)

Inhalation LC₅₀ Rat: 8.2 mg/L/4H; Oral LD₅₀ Rat: 2080 mg/kg; Dermal LD₅₀ Rabbit: >16000 mg/kg

Phenyl glycidyl ether (122-60-1)

Inhalation LC₅₀ Rat: >100 mg/L/4H; Oral LD₅₀ Rat: 3850 mg/kg; Dermal LD₅₀ Rabbit: 1500 µL/kg

Epichlorohydrin (106-89-8)

Oral LD₅₀ Rat: 90 mg/kg; Dermal LD₅₀ Rabbit: 515 mg/kg; Inhalation LC₅₀ Rat: 500 ppm/4H

Ethyl acrylate (140-88-5)

Inhalation LC₅₀ Rat: 1414 ppm/4H; Oral LD₅₀ Rat: 800 mg/kg; Dermal LD₅₀ Rabbit: 500 µL/kg

Acrylonitrile (107-13-1)

Inhalation LC₅₀ Rat: 333 ppm/4H; Oral LD₅₀ Rat: 78 mg/kg; Dermal LD₅₀ Rat: 148 mg/kg;

Dermal LD₅₀ Rabbit: 250 mg/kg

Methyl alcohol (67-56-1)

Inhalation LC₅₀ Rat: 83.2 mg/L/4H; Inhalation LC₅₀ Rat: 64000 ppm/4H; Oral LD₅₀ Rat: 5628 mg/kg;

Dermal LD₅₀ Rabbit: 15800 mg/kg

Chloroform (67-66-3)

Inhalation LC₅₀ Rat: 47702 mg/kg/4H; Oral LD₅₀ Rat: 695 mg/kg; Dermal LD₅₀ Rabbit: >3980 mg/kg

Carcinogenicity

A: General Product Information

No information available for the product.

B: Component Carcinogenicity

Titanium dioxide (13463-67-7)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

NIOSH: potential occupational carcinogen

IARC: Monograph 93 [in preparation], Monograph 47 [1989] (Group 2B (possibly carcinogenic to humans))

Phenyl glycidyl ether (122-60-1)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

NIOSH: Potential occupational carcinogen

IARC: Monograph 71 [1999], Monograph 47 [1989] (Group 2B (possibly carcinogenic to humans))

Epichlorohydrin (106-89-8)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

NIOSH: Potential occupational carcinogen

NTP: Reasonably Anticipated To Be A Human Carcinogen (Possible Select Carcinogen)

IARC: Monograph 71 [1999], Supplement 7 [1987], Monograph 11 [1976] (overall evaluation upgraded from 2B to 2A with supporting evidence from other relevant data) (Group 2A (probably carcinogenic to humans))

Ethyl acrylate (140-88-5)
 ACGIH: A4 - Not Classifiable as a Human Carcinogen
 NIOSH: Potential occupational carcinogen
 IARC: Monograph 71 [1999], Supplement 7 [1987], Monograph 39 [1986] (Group 2B (possibly carcinogenic to humans))

Acrylonitrile (107-13-1)
 ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
 OSHA: 1 ppm Action Level; 2 ppm TWA; 10 ppm Excursion Limit (15 min, Skin and eye exposure prohibited. Cancer hazard - see 29 CFR 1910.1045)
 NIOSH: Potential occupational carcinogen
 NTP: Reasonably Anticipated To Be A Human Carcinogen (Possible Select Carcinogen)
 IARC: Monograph 71 [1999], Supplement 7 [1987] (Group 2B (possibly carcinogenic to humans))

Chloroform (67-66-3)
 ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
 NIOSH: Potential occupational carcinogen
 NTP: Reasonably Anticipated To Be A Human Carcinogen (Possible Select Carcinogen)
 IARC: Monograph 73 [1999] (Group 2B (possibly carcinogenic to humans))

Section 12 - Ecological Information

Ecotoxicity

A: General Product Information

This product may be harmful to terrestrial and aquatic plant and animal life (especially if large quantities are released).

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

	Test & Species	Conditions	
Methylisobutyl ketone (108-10-1)	96 Hr LC ₅₀ Pimephales promelas	496-514 mg/L [flow-through]	
	96 Hr EC ₅₀ Selenastrum capricornutum	400 mg/L	
	24 Hr EC ₅₀ water flea	4280.0 mg/L	
	48 Hr EC ₅₀ Daphnia magna	170 mg/L	
Phenyl glycidyl ether (122-60-1)	96 Hr LC ₅₀ Carassius auratus	43 mg/L [static]	
	96 Hr LC ₅₀ Lepomis macrochirus	35 mg/L [static]	
Epichlorohydrin (106-89-8)	96 Hr LC ₅₀ Lepomis macrochirus	35 mg/L [semi-static]	
	96 Hr LC ₅₀ Brachydanio rerio	30.5 mg/L [static]	
	96 Hr LC ₅₀ Pimephales promelas	9.1-12.3 mg/L [static]	
	48 Hr EC ₅₀ Daphnia magna	24 mg/L	
	Ethyl acrylate (140-88-5)	96 Hr LC ₅₀ Pimephales promelas	2.31-2.7 mg/L [flow-through]
		96 Hr LC ₅₀ Leuciscus idus	10.0-22.0 mg/L [static]
96 Hr LC ₅₀ Oncorhynchus mykiss		4.6 mg/L	
72 Hr EC ₅₀ Scenedesmus subspicatus		48 mg/L	
Acrylonitrile (107-13-1)	48 Hr EC ₅₀ Daphnia magna	7.9 mg/L	
	96 Hr LC ₅₀ Pimephales promelas	6.7-15 mg/L [flow-through]	
	96 Hr LC ₅₀ Lepomis macrochirus	8.0-12.0 mg/L [static]	
	96 Hr LC ₅₀ Poecilia reticulata	33.5 mg/L [static]	
	96 Hr LC ₅₀ Brachydanio rerio	25 mg/L [flow-through]	
	96 Hr LC ₅₀ Oncorhynchus mykiss	24 mg/L	
	96 Hr LC ₅₀ Cyprinus carpio	18.07 mg/L [semi-static]	
Methyl alcohol (67-56-1)	96 Hr LC ₅₀ Lepomis macrochirus	8.7-10 mg/L [flow-through]	
	96 Hr LC ₅₀ Pimephales promelas	28-39 mg/L [static]	
	48 Hr EC ₅₀ water flea	7.60 mg/L	
	96 Hr LC ₅₀ Pimephales promelas	28200 mg/L [flow-through]	
	96 Hr LC ₅₀ Pimephales promelas	>100 mg/L [static]	
Chloroform (67-66-3)	96 Hr LC ₅₀ Oncorhynchus mykiss	19500-20700 mg/L [flow-through]	
	96 Hr LC ₅₀ Oncorhynchus mykiss	18-20 ml/L [static]	
	96 Hr LC ₅₀ Lepomis macrochirus	13500-17600 mg/L [flow-through]	
	96 Hr LC ₅₀ Pimephales promelas	71 mg/L [flow-through]	
	96 Hr LC ₅₀ Oncorhynchus mykiss	18 mg/L [flow-through]	
	96 Hr LC ₅₀ Lepomis macrochirus	18 mg/L [flow-through]	
	96 Hr LC ₅₀ Poecilia reticulata	300 mg/L [static]	
	48 Hr EC ₅₀ Scenedesmus subspicatus	560 mg/L	
48 Hr EC ₅₀ water flea	28.9 mg/L [Static]		

Section 13 - Disposal Considerations

US EPA Waste Number & Descriptions

Component WasteNumbers	RCRA
Methylisobutyl ketone (108-10-1)	waste number U161 (Ignitable waste)
Epichlorohydrin (106-89-8)	waste number U041
Ethyl acrylate (140-88-5)	waste number U113 (Ignitable waste)
Acrylonitrile (107-13-1)	waste number U009
Methyl alcohol (67-56-1)	waste number U154 (Ignitable waste)
Chloroform (67-66-3)	waste number U044 6.0 mg/L regulatory level

Disposal Instructions

All wastes must be handled in accordance with local, state and federal regulations.
See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

Section 14 - Transportation Information

US DOT Information

Shipping Name: Not Regulated

Section 15 - Regulatory Information

US Federal Regulations

Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Methylisobutyl ketone (108-10-1)	CERCLA: 5000 lb final RQ; 2270 kg final RQ
Epichlorohydrin (106-89-8)	SARA 302: 1000 lb TPQ SARA 313: 0.1 % de minimis concentration CERCLA: 100 lb final RQ; 45.4 kg final RQ
Ethyl acrylate (140-88-5)	SARA 313: 1000 lb TPQ SARA 313: 0.1 % de minimis concentration CERCLA: 100 lb final RQ; 45.4 kg final RQ
Ethyl acrylate (140-88-5)	SARA 313: 0.1 % de minimis concentration CERCLA: 100 lb final RQ; 45.4 kg final RQ
Acrylonitrile (107-13-1)	SARA 302: 1000 lb TPQ SARA 313: 0.1 % de minimis concentration CERCLA: 100 lb final RQ; 45.4 kg final RQ
Methyl alcohol (67-56-1)	CERCLA: 5000 lb final RQ; 2270 kg final RQ
Chloroform (67-66-3)	SARA 302: 1000 lb TPQ SARA 313: 0.1 % de minimis concentration CERCLA: 10 lb final RQ; 4.54 kg final RQ

State Regulations

Component Analysis – State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Titanium dioxide	13463-67-7	No	Yes	Yes	Yes	Yes	Yes
Methylisobutyl ketone	108-10-1	Yes	Yes	Yes	Yes	Yes	Yes
Phenyl glycidyl ether	122-60-1	Yes	Yes	Yes	Yes	Yes	Yes
Epichlorohydrin	106-89-8	Yes	Yes	Yes	Yes	Yes	Yes
Ethyl acrylate	140-88-5	Yes	Yes	Yes	Yes	Yes	Yes
Acrylonitrile	107-13-1	Yes	Yes	Yes	Yes	Yes	Yes
Methyl alcohol	67-56-1	Yes	Yes	Yes	Yes	Yes	Yes
Chloroform	67-66-3	Yes	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects.

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Phenyl glycidyl ether	122-60-1	0.1 %
Epichlorohydrin	106-89-8	0.1 %
Acrylonitrile	107-13-1	0.1 %
Chloroform	67-66-3	0.1 %

Additional Regulatory Information

Component Analysis – Inventory

Component	CAS #	TSCA	CAN	EEC
Carbonic acid, calcium salt (1:1)	471-34-1	Yes	DSL	EINECS
Titanium dioxide	13463-67-7	Yes	DSL	EINECS
Methylisobutyl ketone	108-10-1	Yes	DSL	EINECS
Phenyl glycidyl ether	122-60-1	Yes	DSL	EINECS
Epichlorohydrin	106-89-8	Yes	DSL	EINECS
Ethyl acrylate	140-88-5	Yes	DSL	EINECS
Acrylonitrile	107-13-1	Yes	DSL	EINECS
Methyl alcohol	67-56-1	Yes	DSL	EINECS
Chloroform	67-66-3	Yes	DSL	EINECS

Section 16 - Other Information

Other Information

The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

Preparation Date of Material Safety Data Sheet

PREPARED BY CHIEF CHEMIST
 PHONE NUMBER OF PREPARER 416-255-1111 FAX 416-255-1729
 DATE PREPARED 3 February, 2014

Flextile Ltd. assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, Flextile Ltd., assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.

FLEXTILE LTD.