



## Safety Data Sheet

### Seal Bond FCS-410

Revision Date: November 16, 2015

#### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: FCS-410 PART A  
PRODUCT CODES: FCS-410 PART A  
  
MANUFACTURER: Seal Bond  
STREET ADDRESS: 14851 Michael Lane  
CITY, STATE, ZIP: Spring Lake, MI 49456  
  
INFORMATION PHONE: 616-850-0507  
EMERGENCY PHONE: Chemtrec 800-424-9300  
FAX PHONE: 616-850-0530

PREPARED BY: Kelly Barnes

Chemical Name or Class: Epoxy mixture

#### SECTION 2. HAZARDS IDENTIFICATION

##### Hazard Overview

GHS Classification: Serious eye damage/Eye irritation category 2A, Skin irritation category 2, skin sensitizer category 1, Long term hazards to aquatic environment Category 2

GHS Label Elements and Precautionary Statements:



Label Elements:

Hazard Statements:

Warning: Causes serious eye irritation.

Warning: Causes skin irritation

Warning: May cause an allergic skin reaction

Toxic to aquatic life with long lasting effects

Precautionary statements:

P102 Keep out of reach of children.

P103 Read label before use

P264 Wash hands thoroughly after handling.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P272 Contaminated work clothing should not be allowed out of the workplace.  
 P273 Avoid release to the environment.  
 Response  
 P302 + P352 IF ON SKIN: wash with plenty of soap and water.  
 P333 + P313 IF SKIN irritation or rash occurs: Get medical advice/attention.  
 P362 + P364 Take off contaminated clothing and wash it 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.  
 P391 Collect spillage.  
 P501 Dispose of contents/container to a waste disposal facility in accordance with local, state, federal or international laws

Other Non-classifiable potential hazards  
 Carcinogen category 2

HMIS HAZARD CLASSIFICATION

HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0 PERSONAL PROTECTIVE EQUIPMENT: G

POTENTIAL HEALTH EFFECTS

EYES:

MAY CAUSE IRRITATION BUT NO CORNEAL INJURY IS LIKELY.

SKIN:

MAY CAUSE IRRITATION OR ALLERGIC SKIN RESPONSE.

INGESTION:

THIS MATERIAL HAS A PROBABLE LOW ACUTE ORAL TOXICITY.

INHALATION:

NO GUIDE FOR CONTROL KNOWN, HOWEVER, EXPOSURE TO HEATED VAPORS CAN CAUSE IRRITATION TO THE NOSE, THROAT OR MUCOUS MEMBRANES..

HEALTH HAZARDS (ACUTE AND CHRONIC):

EPOXY RESINS CAN CAUSE SENSITIZATION BY EXPOSURE THROUGH CONTACT OR HIGH CONCENTRATION OF VAPOR. EYES: INJURY IF UNLIKELY BUT STAIN FOR EVIDENCE OF CORNEAL INJURY.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY CONDITIONS OR OTHER ALLERGIC AILMENTS.

CARCINOGENICITY

OSHA: NO NTP: yes IARC: yes

ADDITIONAL CARCINOGENICITY INFORMATION:

Some colors may contain carbon black - Explanation Of Carcinogenicity for carbon: IARC MONOGRAPHS ON EVALUATION OF CARCINOGENIC RISK OF CHEMICALS TO MAN, VOL 65, PG 149, 1996: GROUP 2BTitanium Dioxide is listed by IARC as possibly carcinogenic to humans (group 2B).

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OSHA STEL</u>	<u>WEIGHT %</u>
MODIFIED DIGLYCIDYL ETHER OF					
BISPENOL A	25068-38-6	NONE	NONE	NONE	60-100
ALKYL GLYCIDYL ETHER	68609-97-2	NONE	NONE	NONE	10-30
BENZYL ALCOHOL	100-51-6	NONE	NONE	NONE	0.1-1
HYDROCARBON RESIN	NON-HAZARDOUS	NONE	NONE	NONE	1-5
*Naphthalene	91-20-3	10ppm	10ppm	NONE	<0.06
HYDROXY MODIFIED RESIN	NON-HAZARDOUS	NONE	NONE	NONE	1-5
STODDARD SOLVENT	8052-41-3	100ppm	100 ppm	NONE	0.1-1
1-Methoxy-2-Propanol Acetate	108-65-6	NONE	NONE	NONE	0.1-1
Phosphoric acid (residual)	7664-38-2	1mg/m3	3mg/m3	NONE	0.1-1
Hydroxy Acetic Acid Butyl Ester	7397-62-8	NONE	NONE	NONE	0.1-1
*GLYCOL ETHER 2-BUTOXYETHANOL	111-76-2	25 ppm	25 ppm	NONE	0.1-1
Additive	NJTSRN 800963-5505	NONE	NONE	NONE	0.1-1
Naphtha-Light Aromatic	64742-95-6	50PPM	400PPM	NONE	0.1-1
Salts from alkylamides and esters and Phosphated, alkoxyated, alkyphenol CAS# Trade secret	(NJTSRN 800963-5077)	NONE	NONE	NONE	0.1-1

Colors may contain @ 3-7%:

Titanium Dioxide	13463-67-7	10mg/m3	10mg/m3	5mg/m3	
*CARBON	1333-86-4	3.5PPM	3.4PPM	NONE	<1.0
Precipitated Silica	112926-00-8	NONE	80mg/m3	NONE	
Iron III oxide	1309-37-1	10mg/m3	5mg/m3	NONE	
Yellow Pigment	Not available	NONE	NONE	NONE	
Zinc Sulfate (component of yellow pigment)	1314-98-3	NONE	NONE	NONE	
Barium Sulfate (component of yellow pigment)	7727-43-7	NONE	NONE	NONE	
Titanium Dioxide (component of yellow pigment)	13463-67-7	NONE	NONE	NONE	
Pigment yellow 65 (component of yellow pigment)	6528-34-3	NONE	NONE	NONE	
Iron III oxide	20344-49-4	15mg/m3	5mg/m3	NONE	
C.I. Pigment Blue	147-14-8	1mg/m3	1mg/m3	NONE	
Aluminum Oxide	1344-28-1	15mg/m3	10mg/m3	NONE	
Silica, amorphous	7631-86-9	80mg/m3	10mg/m3	NONE	
Iron Oxide Yellow	51274-00-1	15mg/m3	10mg/m3	NONE	
Silica, amorphous	7631-86-9	80mg/m3	10mg/m3	NONE	

SECTION 3 NOTES: \*Indicates toxic chemical(s) subject to reporting requirements of section 313 of Title III and of 40 CFR 372.

Note: Ingredients listed without percentages, the percentages are considered a trade secret.

#### SECTION 4. FIRST AID MEASURES

EYES:

FLUSH EYES WITH WATER FOR AT LEAST FIFTEEN MINUTES AND CONSULT A PHYSICIAN.

SKIN:

SKIN CONTACT WILL NORMALLY CAUSE NO MORE THAN IRRITATION BUT WASH AFFECTED AREA WITH SOAP AND WATER AND REMOVE CONTAMINATED CLOTHING PROMPTLY.

INGESTION:

LOW IN TOXICITY, INDUCE VOMITING ONLY IF LARGE AMOUNTS OF MATERIAL ARE INGESTED, AND OTHERWISE DO NOT INDUCE VOMITING. IN EITHER CASE CONSULT WITH A PHYSICIAN.

INHALATION:

REMOVE VICTIM TO FRESH AIR AND ADMINISTER OXYGEN IF NECESSARY.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

#### SECTION 5. FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER: not available  
(% by volume) LOWER: not available

FLASH POINT: 200+F

METHOD USED:

SETA FLASH

EXTINGUISHING MEDIA:

FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL, WATER FOG

SPECIAL FIRE FIGHTING PROCEDURES:

DO NOT ENTER CONFINED AREA WITHOUT FULL BUNKER GEAR INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL ALL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN.

#### SECTION 6. RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

WEAR RESPIRATOR AND PROTECTIVE CLOTHING. SHUT OFF THE SOURCE AT THE LEAK. REMOVE EXCESS WITH VACUUM TRUCK AND TAKE UP THE REMAINDER WITH AN ABSORBENT SUCH AS CLAY AND PLACE IN DISPOSAL CONTAINERS. FLUSH AREA WITH WATER TO REMOVE RESIDUE.

## SECTION 7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

STORE IN A COOL DRY PLACE. SEAL ALL PARTIALLY USED CONTAINERS. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. MIXED MATERIALS CONTAIN THE HAZARDS OF ALL THE COMPONENTS, THEREFORE, READ THE MSDS'S OF ALL THE COMPONENTS PRIOR TO USING MATERIAL. PROPERLY LABEL ALL CONTAINERS

OTHER PRECAUTIONS:

AVOID ALL SKIN CONTACT. AVOID BREATHING VAPORS GENERATED FROM THE MATERIAL. OBSERVE CONDITIONS OF GOOD GENERAL HYGIENE AND SAFE WORKING PRACTICES. CONTAMINATED LEATHER ARTICLES CAN NOT BE CLEANED AND MUST BE DISCARDED IF CONTAMINATED WITH THIS PRODUCT. WASH ALL CONTAMINATED CLOTHING PRIOR TO THE REUSE THEREOF

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

USE A NIOSH APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVER EXPOSURE TO VAPOR IN ACCORDANCE WITH 29 CFR 1910.134. GENERAL EXHAUST IS USUALLY SUFFICIENT IN LIEU OF NIOSH RESPIRATOR

VENTILATION :

GENERAL EXHAUST IS USUALLY SUFFICIENT TO CONTROL VAPORS AND EXPOSURE HAZARDS

PROTECTIVE GLOVES:

IMPERVIOUS GLOVES – NEOPRENE OR RUBBER

EYE PROTECTION:

SPLASH GOGGLES OR GLASSES WITH SIDE SHIELDS.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

WEAR BODY COVERING CLOTHING AND OTHER COVERINGS AS NECESSARY SUCH AS APRON AND APPROPRIATE FOOTWEAR TO AVOID CONTACT WITH MATERIAL.

WORK HYGIENIC PRACTICES:

OBSERVE GOOD GENERAL HYGIENIC PRACTICES.

SEE SECTION THREE FOR OCCPATONAL EXPOSURE LIMIT VALUES

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: MEDIUM VISCOSITY LIQUID IN VARYING COLORS

BOILING POINT OR RANGE: 200 TO 279F

VAPOR DENSITY (AIR = 1): N/A

SPECIFIC GRAVITY (H<sub>2</sub>O = 1): 1.1 - 1.2

EVAPORATION RATE: N/A

SOLUBILITY IN WATER: NEGLIGIBLE

Odor Threshold: N/A

pH: N/A

Melting point/freezing point: N/A

Vapor Pressure: N/A

Auto Ignition Temperature: N/A

Partition Coefficient: n-octanol/water: N/A

Decomposition Temperature: N/A

## SECTION 10. STABILITY AND REACTIVITY

STABILITY:

STABLE

CONDITIONS TO AVOID (STABILITY):

AVOID EXCESSIVE HEAT OR OPEN FLAMES.

INCOMPATIBILITY (MATERIAL TO AVOID):

CAN REACT VIGOROUSLY WITH STRONG OXIDIZING AGENTS AND STRONG LEWIS ACIDS OR MINERAL ACIDS.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

CO<sub>2</sub>, ALDEHYDES, ACIDS. REACTION WITH SOME CURING AGENTS CAN GENERATE LARGE AMOUNTS OF HEAT.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR.

## SECTION 11. TOXICOLOGICAL INFORMATION

No data for the product itself.

Component data:

Component CAS# 25068-38-6: Moderate sensitizer, slight eye irritant, moderate skin irritant, Oral LD50 >5000 mg/kg (rat), Dermal LD50 >6000 mg/kg (rabbit)

Component CAS# 68609-97-2: possible sensitizer, eye and skin irritant, Oral LD50 >10000 mg/kg (rat), Inhalation LD50 – no microscopic changes

Component CAS# 8052-41-3: Draize test (rabbit) eye: 500 mg/24hr – Moderate. Epidemiology: Studies involving petroleum refinery workers indicate that persons with routine exposure to petroleum based constituents may be at an increased risk to the development of benign neoplasms, digestive tract cancer and skin cancer.

Component CAS# 111-76-2: Acute oral Toxicity -LD50 rat 530 mg/kg; LD50 rabbit 520 mg/kg; Acute dermal Toxicity LD50 Rabbit 100mg/kg; Acute Inhalation Toxicity LC50 rat 468ppm (4h); Skin Irritation rabbit – moderate skin irritation.; Eye irritant - rabbit

Component CAS# 7397-62-8: LD50 Oral (rat) = 4595 mg/kg

Component Benzyl Alcohol: Inhalation LC50 (4hr) >4178 mg/l (rat), Dermal LD50 2000 mg/kg (rabbit) Rats exposed to 800 mg/kg for thirteen weeks exhibited CNS depression and histopathological changes in the brain, thymus and skeletal muscles. The No observed Adverse effect level (NOAEL) was 400 mg/kg. No evidence of carcinogenicity was seen in two year study with rats and mice.

Component CAS# 64742-95-6: LD50 dermal (rabbit) > 3480 mg/kg. LC50 (4 hr inhalation, rat) = 5193 ppm.

Component CAS# 108-65-6: LD50 = 8532

Component CAS# 7664-38-2: LD50 Oral (rat) = 1,530 mg/kg

Component Titanium Dioxide: Inhalation 4 h LC50 > 6.82 mg/l; Oral LD50 > 5000 mg/kg, rat; In February 2006, IARC listed titanium dioxide as possibly carcinogenic to humans Group 2B.

Component CAS# 67762-90-7: LD50 (rat >1000 mg/kg, LD50 dermal (rabbit) >2000 mg/kg

Component Carbon: IARC lists carbon as a possible human carcinogen Category 2B. LD50 – Intravenous, mouse = 440 mg/kg

Component CAS# 112926-00-8: LD50 (rat >5000 mg/kg, LD50 dermal (rat) >2000 mg/kg

Component Iron III oxide CAS# 1309-37-1: Acute Oral Toxicity LD50 >5000 mg/kg (rat). Acute Dermal Toxicity LD50 >5000 mg/kg (rat)

Component Yellow Pigment: Not Hazardous as defined by OSHA HC Standard 29 CFR 1810.1200.. Acute oral value of 20 gm/kg or greater in rats

Component Iron III oxide CAS# 20344-49-4: Acute Oral Toxicity LD50 >5000 mg/kg (rat).

## SECTION 12. ECOLOGICAL INFORMATION

No data for the product itself.

Component data:

Component CAS# 25068-38-6: Biodegradability (Modified Sturm Method) 12%, Fish toxicity: Rainbow trout (96hr) LC50 1.5mg/l, Zebra Fish (96hr) LC50 2.4 mg/l. Invertebrate Toxicity: Daphnia Toxicity (24hr) EC 50 3.6 mg/l

Component Titanium Dioxide: Pimephales promelas (fathead minnow) < 1000 mg/l @ 96h LC50; Pseudokirchneriella subcapitata (green algae) 61 mg/l @ 72h EC50; Daphnia magna (water flea) > 1000 mg/l @ 48h EC50

Component CAS# 112926-00-8: Ecotoxicity: EC50 (fish) .10000 mg/l (daphnia >10000 mg/l

Component Iron III oxide CAS# 1309-37-1: Acute and Prolonged Toxicity to fish LC0 >1000 mg/l (golden Orfe). Acute toxicity to Aquatic Invertebrates EC0 > 10000 mg/l (water flea). Toxicity to Microorganisms EC0 > 1000mg/l (pseudomonas putida)

Component Yellow Pigment: Not Hazardous as defined by OSHA HC Standard 29 CFR 1810.1200.

Component Iron III oxide CAS# 20344-49-4: Acute and Prolonged Toxicity to fish LC0 >1000 mg/l (golden Orfe). Toxicity to Microorganisms EC0 > 10000mg/l (pseudomonas putida)

Component Benzyl Alcohol: EC50 (48hr) 400 mg/l Daphnia Magna, EC50 (72hr) 2600 mg/l Algae, Biodegradation BOD<sub>2</sub> 62. Slightly or not bioaccumulative. Toxicity to fish: LC50 (96 hr) 10 mg/l Bluegill sunfish (Lepomis macrochinus), LC50 (96hr) 460 ml/l Fathead minnow (Pimephales promelas), Toxicity to Algae: IC50 (72hr) 700 mg/l

## SECTION 13. WASTE DISPOSAL

WASTE DISPOSAL METHOD:.

DISPOSE OF THE MATERIAL IN A WASTE DISPOSAL SITE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAW.

## SECTION 14. Transport Information

DOT: Not Regulated

IMO/IMDG: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CONTAINS Bisphenol A Diglycidyl Ether Polymer), 9, PGIII, Marine Pollutant

## SECTION 15. REGULATORY INFORMATION

No data for the product itself.

Component data:

Component CAS# 25068-38-6: Considered a hazardous chemical; is on the TSCA list; is on the DSL Canada, WHMIS class D2B; Is on the New Jersey Right to Know list; is on the PA Right to Know List;

Component CAS# 68609-97-2: Considered a hazardous chemical; is on the TSCA list; is on the DSL Canada, Is on the New Jersey Right to Know list; is on the PA Right to Know List.

Component Benzyl Alcohol: E20/22 Harmful by inhalation and if swallowed. On TSCA list, on DSL Canada

Component HYDROCARBON RESIN: Component contains 0.01-0.06 wt% Naphthalene CAS# 91-20-3 with a CERCLA RQ of 100 pounds. Component is on the TSCA list and Canadian DSL list. Component does not contain any reportable chemicals above the de minimus level for section 313. Component is not hazardous as defined by CFR 1910.1200 or Title III section 312/313 of the superfund amendment. Naphthalene is known to the state of California to cause cancer. Naphthalene is on the Pennsylvania, Massachusetts and New Jersey right to know lists.

Component HYDROXY MODIFIED RESIN.: Component is not hazardous as defined by CFR 1910.1200 and under the provisions of Title III Section 311/312 of the Superfund amendments and Reauthorization Act. Component is on the TSCA list..

Component CAS# 111-76-2: Section 313 toxic Chemical. Section 311 hazard category – Chronic fire, On TSCA list. May contain trace components of benzene, toluene, ethylbenzene and NJTSRN 800963-5170 and contains chemicals known to the state of California to cause cancer and birth defects. All components on the DSL Canada

Component CAS# 8052-41-3: Component is on the TSCA and Canada DSL lists. Component is on the Pennsylvania, California, New Jersey Massachusetts and Minnesota right to know lists.

Component CAS# 7397-62-8: Component is on the Canada DSL and TSCA lists.

Component CAS# 64742-95-6 This product is a hazardous chemical . This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372

Component 1,2,4-trimethylbenzene CAS# 95-63-6 at < 15% and trace amounts of benzene CAS# 71-43-2.. Benzene is known to the state of California to cause cancer and birth defects or other reproductive harm and is on the Prop 65 list. Component is on the TSCA and Canada DSL lists Component is on the TSCA list as well as the AICS, DSL, ECL, EINECS, ENCS, IECSC and PICCS lists

Component Salts from alkylamides and esters and Phosphated, alkoxyated, alkyphenol CAS# Trade secret (NJTSRN 800963-5077): Component is on TSCA and Canada DSL lists.

Component CAS# 108-65-6: Listed on TSCA and DSL

Component Phosphoric acid (residual) CAS# 7664-38-2: is on the TSCA inventory or not subject to notification requirements. Component is on the Danada DSL list.

Component Titanium Dioxide: Contains Proposition 65 Chemicals, is on the PA Hazardous substance list, is on the NJ right to know Regulated chemical List.

Titanium Dioxide is on inventory or in compliance with EINECS, TSCA, AICS, DSL, ENCS (JP), KECI (KR), PICCS (PH) and INV (CN).

Component Carbon: Contains Proposition 65 Chemicals .Carbon: is listed on TSCA and DSL Canada

Component CAS# 112926-00-8: Is not classified as dangerous. National Chemical Inventory listings include – AICS, DSL, IECSC, EINECS, ENCS, KECI, NZLOC, PICCS, TSCA,

Component Iron III oxide CAS# 1309-37-1Listed on TSCA Inventory. Section 313/312 hazard category: Chronic health hazard. Potential exposure to all of the California proposition 65 have been determined to be below the No significant risk level (NSRL). Component and its impurities (1%) are on the Pennsylvania, New Jersey right to know substance lists. Component contains the following chemicals listed on the New Jersey and Pennsylvania RTK special hazardous Substance lists: Manganese CAS# 7439-96-5 (0.7%) and Aluminum CAS# 7429-90-5 (0.29%). Component contains the following ingredients which are on the Pennsylvania, Massachusetts hazardous substance lists: Chromium CAS# 7440-47-3 (0.075%) and Nickel CAS# 7440-02-0 (0.04%) Component contains the following chemicals on the California Proposition 65 list known to the state of California to be carcinogenic: Nickel CAS# 7440-02-0 (0.04%) and Cobalt CAS# 7440-48-4 (30 ppm).

Component Yellow Pigment: Not Hazardous as defined by OSHA HC Standard 29 CFR 1810.1200.

Component Iron III oxide CAS# 20344-49-4: Listed on TSCA Inventory. Potential exposure to all of the California proposition 65 chemicals have been determined to be below the No significant risk level (NSRL). Components are on the Pennsylvania right to know substance list.

Component contains the following chemicals listed on the Pennsylvania RTK special hazardous Substance lists: chromium CAS# 7440-47-3 (0.02%) and nickel CAS# 7440-02-0 (0.015%). Component contains the following ingredients which are on the Massachusetts hazardous substance lists: Chromium CAS# 7440-47-3 (0.02%), arsenic CAS# 7440-38-2 (60ppm), Beryllium CAS# 7440-41-7 (1ppm) and Nickel CAS# 7440-02-0 (0.015%) Component contains the following chemicals on the California Proposition 65 list known to the state of California to be carcinogenic: Nickel CAS# 7440-02-0 (0.015%), arsenic CAS# 7440-38-2 (60ppm), Beryllium CAS# 7440-41-7 (1ppm) and Cobalt CAS# 7440-48-4 (70ppm)..

Component CAS# 147-14-8: Component is on the TSCA List. and not controlled under WHMIS. Component is a CERCLA hazardous substance

Component CAS# 1344-28-1: Component is on the Massachusetts, New Jersey, Pennsylvania right to know lists. Component is on TSCA list and Canada DSL.

Component CAS# 7631-86-9: Component is on the Minnesota right to know list. Component is on TSCA list and Canada DSL.

Component CAS# 51274-00-1: Component is on the TSCA list and Canada DSL.

Component CAS# 7631-86-9: Component is on the Minnesota right to know list. Component is on TSCA list and Canada DSL.

## **SECTION 16. OTHER INFORMATION**

DISCLAIMER: The information Contained herein is based on the data available and is believed to be accurate, However, the manufacturer makes no warranty expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Accordingly, we assume no responsibility for injury from the use of this product.

N/A = Not Available

See Section 1 for date of preparation



## Safety Data Sheet

### Seal Bond FCS-410

Revision Date: November 16, 2015

#### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: FCS-410 PART B  
PRODUCT CODES: FCS-410 PART B  
  
MANUFACTURER: Seal Bond  
STREET ADDRESS: 14851 Michael Lane  
CITY, STATE, ZIP: Spring Lake, MI 49456  
  
INFORMATION PHONE: 616-850-0507  
EMERGENCY PHONE: Chemtrec 800-424-9300  
FAX PHONE: 616-850-0530

PREPARED BY: Kelly Barnes

Chemical Name or Class: Polyamine mixture

#### SECTION 2. HAZARDS IDENTIFICATION

##### Hazard Overview

GHS Classification: Skin corrosion/irritation category 2, skin sensitizer category 1B, Serious eye damage category 1 Aquatic hazard (long term) category 3

GHS Label Elements and Precautionary Statements:



Label Elements:

Hazard Statements:

Warning: Causes skin irritation

Warning: May cause an allergic skin reaction

Danger: Causes severe eye damage

Harmful to aquatic life with long lasting effects

Precautionary statements:



P102 Keep out of reach of children.  
P103 Read label before use  
P260 Do not breathe dust/fume/gas/mist/vapours/spray  
P264 Wash hands thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P273 Avoid release to the environment.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.  
P363 Wash contaminated clothing before reuse.  
P304 + P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.  
P310 Immediately call a POISON CENTER or doctor/physician.  
P321 If skin irritation or burns develop, Call a doctor/physician .  
P305 + P351 + P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P302 + P352 IF ON SKIN: wash with plenty of soap and water.  
P333 + P313 IF SKIN irritation or rash occurs: Get medical advice/attention.  
P337 + P313 IF eye irritation persists: Get medical advice/attention

Disposal:

P501 Dispose of contents/container to a waste disposal facility in accordance with local, state, federal or international laws.

#### HMIS HAZARD CLASSIFICATION

HEALTH: 2      FLAMMABILITY: 1      REACTIVITY: 0      PERSONAL PROTECTIVE EQUIPMENT: G

#### POTENTIAL HEALTH EFFECTS

EYES:

WILL CAUSE BURNS TO THE EYES. HIGH VAPOR CONCENTRATIONS CAN CAUSE SEVERE IRRITATION TO THE EYES.

SKIN:

CAN CAUSE SKIN IRRITATION OR POSSIBLE BURNS TO THE SKIN

INGESTION:

LIQUID CAN CAUSE SEVERE DAMAGE TO MUCOUS MEMBRANES IF SWALLOWED.

INHALATION:

HIGH CONCENTRATIONS OF VAPOR CAN CAUSE IRRITATION TO THE RESPIRATORY TRACT, NAUSEA, AND DIZZINESS.

HEALTH HAZARDS (ACUTE AND CHRONIC):

PROLONGED OR REPEATED EXPOSURE MAY CAUSE ASTHMA AND SKIN SENSITIZATION OR OTHER ALLERGIC RESPONSES.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY CONDITIONS OR OTHER ALLERGIC AILMENTS.

CARCINOGENICITY

OSHA: NO      NTP: NO      IARC: NO

ADDITIONAL CARCINOGENICITY INFORMATION:

NO LISTED INGREDIENTS OF THIS PRODUCT ARE REGULATED AS CARCINOGENS.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OSHA STEL</u>	<u>WEIGHT %</u>
Propoxylated Triethylenetetramine	26950-63-0	NONE	NONE	NONE	10-30
N,N-Bis(aminoethyl)-1,2-ethanediamine	112-24-3	NONE	NONE	NONE	60-100
TRIS-2,4,6-dimethylaminomethylphenol	90-72-2	NONE	NONE	NONE	1-5
Bis(dimethylaminomethyl) phenol	71074-89-0	NONE	NONE	NONE	0.1-1

\*INDICATES TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III AND OF 40 CFR 372.

Note: Ingredients listed without percentages, the percentages are considered a trade secret.

## **SECTION 4. FIRST AID MEASURES**

### **EYES:**

IMMEDIATELY FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE LIFTING UPPER AND LOWER LIDS. GET IMMEDIATE MEDICAL ASSISTANCE.

### **SKIN:**

FLUSH SKIN WITH WATER FOR AT LEAST 15 MINUTES AND REMOVE ALL CONTAMINATED CLOTHING IMMEDIATELY. GET MEDICAL ATTENTION IF REDDENING OR SWELLING OCCURS.

### **INGESTION:**

DO NOT INDUCE VOMITING. DILUTE BY GIVING WATER OR MILK TO DRINK IF VICTIM IS CONSCIOUS. GET MEDICAL ATTENTION IMMEDIATELY.

### **INHALATION:**

REMOVE TO FRESH AIR IF EFFECTS PERSIST AND ADMINISTER OXYGEN IF NECESSARY.

## **SECTION 5. FIRE-FIGHTING MEASURES**

FLAMMABLE LIMITS IN AIR,                      UPPER: not available  
(% by volume)                                      LOWER: not available

FLASH POINT: 200+F

METHOD USED:

SETA FLASH

EXTINGUISHING MEDIA:

FOAM, ALCOHOL FOAM, CO2, WATER FOG

SPECIAL FIRE FIGHTING PROCEDURES:

TOXIC FUMES WILL BE EVOLVED WHEN THIS MATERIAL IS INVOLVED IN A FIRE. A SELF-CONTAINED BREATHING APPARATUS SHOULD BE AVAILABLE FOR FIRE FIGHTING. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN.

## **SECTION 6. RELEASE MEASURES**

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

AVOID CONTACT WITH MATERIAL. WEAR THE APPROPRIATE SAFETY EQUIPMENT. STOP SPILL AT SOURCE, DYKE AREA TO PREVENT SPREADING. PUMP LIQUID TO SALVAGE TANK. TAKE UP REMAINDER WITH CLAY OR OTHER ABSORBENT AND PLACE IN DISPOSAL CONTAINERS.

## **SECTION 7. HANDLING AND STORAGE**

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

AVOID ALL SKIN CONTACT. AVOID BREATHING VAPORS. RESEAL PARTIALLY USED CONTAINERS. PROPERLY LABEL ALL CONTAINERS. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. OBSERVE CONDITIONS OF GOOD INDUSTRIAL HYGIENE AND SAFE WORKING PRACTICES.

OTHER PRECAUTIONS:

MIXED MATERIALS CONTAIN THE HAZARDS OF ALL THE COMPONENTS, THEREFORE, READ THE MSDS OF ALL COMPONENTS TO BECOME FAMILIAR WITH ALL HAZARDS PRIOR TO USING THIS PRODUCT.

## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

RESPIRATORY PROTECTION:

NIOSH APPROVED RESPIRATOR PROTECTION REQUIRED IN THE ABSENCE OF PROPER ENVIRONMENTAL CONTROLS. FOR EMERGENCIES A SELF-CONTAINED BREATHING APPARATUS OR A FULL FACE RESPIRATOR IS RECOMMENDED.

VENTILATION:

AVOID BREATHING VAPORS. VENTILATION MUST BE SUFFICIENT TO CONTROL VAPORS.

PROTECTIVE GLOVES:

IMPERVIOUS GLOVES – NEOPRENE OR RUBBER

EYE PROTECTION:

SPLASH GOGGLES OR GLASSES WITH SIDE SHIELDS.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

WEAR BODY COVERING CLOTHING AND OTHER COVERINGS AS NECESSARY SUCH AS APRON AND APPROPRIATE FOOTWEAR TO AVOID CONTACT WITH MATERIAL.

WORK HYGIENIC PRACTICES:

OBSERVE GOOD GENERAL HYGIENIC PRACTICES.

SEE SECTION THREE FOR OCCPATONAL EXPOSURE LIMIT VALUES.

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE AND ODOR: AMBER CLEAR LIQUID WITH AMINE ODOR.

BOILING POINT OR RANGE: 155 TO 401 DEG F

VAPOR DENSITY (AIR = 1): N/A

SPECIFIC GRAVITY (H2O = 1): 1.0

EVAPORATION RATE: N/A

SOLUBILITY IN WATER: NEGLIGIBLE

Odor Threshold: N/A

pH: N/A

Melting point/freezing point: N/A

Vapor Pressure: N/A

Auto Ignition Temperature: N/A

Partition Coefficient: n-octanol/water: N/A

Decomposition Temperature: N/A

## **SECTION 10. STABILITY AND REACTIVITY**

STABILITY:

STABLE

CONDITIONS TO AVOID (STABILITY):

AVOID EXCESSIVE HEAT OR OPEN FLAMES.

INCOMPATIBILITY (MATERIAL TO AVOID):

CAN REACT VIGOROUSLY WITH STRONG OXIDIZING AGENTS AND STRONG LEWIS ACIDS OR MINERAL ACIDS.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

CO<sub>2</sub>, ALDEHYDES, ACIDS. REACTION WITH SOME CURING AGENTS CAN GENERATE LARGE AMOUNTS OF HEAT.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

## **SECTION 11. TOXICOLOGICAL INFORMATION**

No data for the product itself.

Component data:

Component CAS# 26950-63-0 and CAS# 112-24-3: Ingestion LD50 > 2000 mg/kg (rat) Method Estimated.. Skin LD50 > 2000 mg/kg (rabbit) Method estimated. May cause sensitization by skin contact. Chronic Health hazard: Results from a battery of short term tests on this material indicate mutagenic activity.

Component CAS# 90-72-2 and CAS# 71074-89-0: Oral LD50 (rat) 1200 mg/kg; Dermal LD50 (rabbit) 1280 mg/kg; Inhalation LC50 (rat) > 0.5 mg/liter/1 hour; Severe irritant to eyes of a rabbit. Severe irritant to the skin of a rabbit. Corrosive to the skin of a rabbit.

## **SECTION 12. ECOLOGICAL INFORMATION**

No data for the product itself.

Component data:

Component CAS# 90-72-2 and CAS# 71074-89-0: Toxicity: LC50 fish 447.8 mg/l (96 hr). LC50 Crust 28.2 mg/l (48 hr). EC50 alga 34.8 mg/l (96 hr)

## **SECTION 13. WASTE DISPOSAL**

WASTE DISPOSAL METHOD:

DISPOSE OF MATERIAL AS A HAZARDOUS WASTE ACCORDING TO FEDERAL, STATE, AND LOCAL REGULATIONS.

## **SECTION 14. Transport Information**

DOT: UN1760, CORROSIVE LIQUID N.O.S. (CONTAINS PROPOXYLATED TRIETHYLENETETRAMINE, N,N-BIS(AMINOETHYL)-1-2-ETHANEDIAMINE), 8, PG III

IMO/IMDG : UN1760, CORROSIVE LIQUID N.O.S. (CONTAINS PROPOXYLATED TRIETHYLENETETRAMINE, N,N-BIS(AMINOETHYL)-1-2-ETHANEDIAMINE), 8, PG III

## **SECTION 15. REGULATORY INFORMATION**

No data for the product itself.

Component data:

Component CAS# 26950-63-0 and CAS# 112-24-3: Acute health hazard, Chronic health hazard. Components are not on the California Proposition 65 list. Components are on the TSCA and Canada DSL lists as well as the EINECS, AICS, ENCS, ECL, SEPA inventories.

Component CAS# 90-72-2 and 71074-89-0 EEC symbol – Harmful, harmful if swallowed (R22) Irritating to eyes and skin (R36/38).

Component is on the Canada DSL, TSCA, EINECS, AICS, ENCS, ECL, SEPA, PICCS lists

SECTION 16: OTHER INFORMATION

DISCLAIMER: The information Contained herein is based on the data available and is believed to be accurate, However, the manufacturer makes no warranty expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Accordingly, we assume no responsibility for injury from the use of this product.

N/A = Not Available

See Section 1 for date of preparation



# Safety Data Sheet

## Seal Bond FCS-410

Revision Date: November 16, 2015

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: FCS-410 PART C  
PRODUCT CODES: FCS-410 PART C  
  
MANUFACTURER: Seal Bond  
STREET ADDRESS: 14851 Michael Lane  
CITY, STATE, ZIP: Spring Lake, MI 49456  
  
INFORMATION PHONE: 616-850-0507  
EMERGENCY PHONE: Chemtrec 800-424-9300  
FAX PHONE: 616-850-0530

PREPARED BY: Kelly Barnes

Chemical Name or Class: sand

### SECTION 2. HAZARDS IDENTIFICATION

#### Hazard Overview

GHS Classification: Carcinogenicity category 1, Specific target organ toxicity following repeated exposure category 1, Specific target organ toxicity (single exposure) category 3

GHS Label Elements and Precautionary Statements:



Label Elements:

Hazard Statements:

DANGER: May cause cancer

DANGER: Causes damage to organs through prolonged or repeated exposures (lungs, respiratory system)

WARNING: May cause respiratory irritation.

Precautionary statements:

P102 Keep out of reach of children.

P103 Read label before use

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P280 Wear protective gloves/protective clothing/eye protection/face protection  
P260 Do not breathe dust/fume/gas/mist/vapours/spray. P264 Wash hands thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray P271 Use only outdoors or in a well-ventilated area.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P314 Get medical advice/attention if you feel unwell

P304 + P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

Storage:

P405 Store locked up

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

Disposal:

P501 Dispose of contents/container to a waste disposal facility in accordance with local, state, federal or international laws

#### HMIS HAZARD CLASSIFICATION

HEALTH: 2      FLAMMABILITY: 0      REACTIVITY: 0      PERSONAL PROTECTIVE EQUIPMENT: E

#### POTENTIAL HEALTH EFFECTS

EYES:

MAY CAUSE REDDENING OF THE EYES OR EYE IRRITATION FROM AIRBORNE PARTICLES.

SKIN:

NONE KNOWN

INGESTION:

NONE KNOWN

INHALATION:

PROLONGED EXPOSURE TO RESPIRABLE CRYSTALLINE QUARTZ MAY CAUSE DELAYED LUNG INJURY (SILICOSIS). ACUTE OR RAPIDLY DEVELOPING SILICOSIS MAY OCCUR IN A SHORT PERIOD OF TIME IN HEAVY EXPOSURE IN SOME APPLICATIONS SUCH AS SAND BLASTING.

HEALTH HAZARDS (ACUTE AND CHRONIC):

MAY CAUSE DELAYED SILICOSIS OR RAPID SILICOSIS IN SOME OCCUPATIONS SUCH AS SANDBLASTING, SILICOSIS IS A FORM OF A DISABLING PULMONARY FIBROSIS WHICH CAN BE PROGRESSIVE AND COULD LEAD TO DEATH. INHALATION MAY LEAD TO LUNG SCARRING AND MASSIVE FIBROSIS WHICH COULD BE ACCOMPANIED BY RIGHT HEART ENLARGEMENT, HEART FAILURE, OR PULMONARY FAILURE, SMOKING AGGRAVATES THE EFFECTS OF EXPOSURE.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY CONDITIONS OR OTHER ALLERGIC AILMENTS CAN BE AGGRAVATED BY EXPOSURE

CARCINOGENICITY

OSHA: NO      NTP: YES      IARC: YES

#### ADDITIONAL CARCINOGENICITY INFORMATION:

IARC HAS DETERMINED THAT CRYSTALLINE SILICA INHALED IN THE FORM OF QUARTZ IS CARCINOGENIC TO HUMANS (GROUP 1- CARCINOGENIC TO HUMANS). THE NTP CLASSIFIES RESPIRABLE CRYSTALLINE SILICA AS REASONABLY ANTICIPATED TO BE A CARCINOGEN.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OSHA STEL</u>	<u>WEIGHT %</u>
SILICON DIOXIDE	14808-60-7	10mg/m3	.1mg/m3	.1mg/m3	100

#### SECTION 2 NOTES:

\*\*\*No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present.\*\*\*

FOLLOW OSHA HAZARD COMMUNICATION RULE 29CFR SECTIONS 1910.1200, 1915.99, 1917.28, 1918.9, 1926.59, AND STATE AND LOCAL COMMUNITY RIGHT TO KNOW LAWS. WE RECOMMEND THAT SMOKING BE PROHIBITED IN AREAS WHERE RESPIRATORS MUST BE USED.

### SECTION 4. FIRST AID MEASURES

EYES:

FLUSH EYES WITH WATER FOR AT LEAST FIFTEEN MINUTES AND CONSULT A PHYSICIAN IF CONDITIONS WARRANT.

SKIN:

SKIN CONTACT WILL NORMALLY CAUSE NO HEALTH RISKS

INGESTION:

IF INGESTED, CONSULT A PHYSICIAN

INHALATION:

REMOVE VICTIM TO FRESH AIR AND ADMINISTER OXYGEN IF NECESSARY.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

## SECTION 5. FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR,                   UPPER: not available  
(% by volume)                               LOWER: not available

FLASH POINT<sup>0</sup> F: N/A

METHOD USED:

N/A

EXTINGUISHING MEDIA:

OTHER

SPECIAL FIRE FIGHTING PROCEDURES:

CRYSTALLINE SILICA IS NEITHER A FIRE NOR AN EXPLOSION HAZARD

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN.

## SECTION 6. RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

WEAR RESPIRATOR AND USE DUSTLESS HANDLING EQUIPMENT TO CLEAN UP LARGE SPILLS, PLACE IN SUITABLE CONTAINERS FOR DISPOSAL. FLUSH AREA WITH WATER AFTER PICKUP OF MATERIAL.

## SECTION 7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

STORE IN COOL DRY PLACE. PROPERLY LABEL ALL CONTAINERS AND RESEAL ALL PARTIALLY USED CONTAINERS. AVOID CREATING ANY DUST WHEN WORKING WITH THIS MATERIAL.

OTHER PRECAUTIONS:

AVOID BREATHING DUST GENERATED FROM THE MATERIAL. OBSERVE CONDITIONS OF GOOD GENERAL HYGIENE AND SAFE WORKING PRACTICES. PROVIDE TRAINING FOR YOUR EMPLOYEES RELATING TO OCCUPATIONAL EXPOSURE TO QUARTZ DUST. SEE ASTM STANDARD E1132-86 STANDARD PRACTICE FOR HEALTH REQUIREMENTS RELATING TO EXPOSURE TO QUARTZ DUST. IF BETTER THAN 500 X PEL USE A SELF CONTAINED BREATHING APPARATUS. IF SANDBLASTING, USE ANY TYPE CE SUPPLIED AIR RESPIRATOR WITH FULL FACE PIECE OR HOOD.

Safety phrases

S22 Do not breathe dust

S25 Avoid contact with eyes

S38 In case of insufficient ventilation wear suitable respiratory equipment

S39 Wear eye/face protection

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

USE A NIOSH APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVER-EXPOSURE TO QUARTZ DUST. PROVIDE SUFFICIENT EXHAUST TO KEEP EXPOSURE LEVELS BELOW THE ACGIH PEL.

VENTILATION:

USE EXHAUST SUFFICIENT TO MAINTAIN AIRBORNE PARTICULATES BELOW THE ACGIH PEL LIMITS ESTABLISHED.

PROTECTIVE GLOVES:

N/A

EYE PROTECTION:

SPLASH GOGGLES OR GLASSES WITH SIDE SHIELDS.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

PROVIDE ANY EQUIPMENT NECESSARY TO PREVENT THE INHALATION OF QUARTZ DUST.

WORK HYGIENIC PRACTICES:

OBSERVE GOOD GENERAL HYGIENIC PRACTICES.

SEE SECTION THREE FOR OCCPATONAL EXPOSURE LIMIT VALUES

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: WHITE OF TAN SAND GRANULAR CRUSHED OR GROUND- NO ODOR  
BOILING POINT OR RANGE ° F: N/A  
VAPOR DENSITY (AIR = 1): N/A  
SPECIFIC GRAVITY (H<sub>2</sub>O = 1): 2.6  
EVAPORATION RATE: N/A  
SOLUBILITY IN WATER: INSOLUBLE IN WATER

Odor Threshold: N/A  
pH: N/A  
Melting point/freezing point: N/A  
Vapor Pressure: N/A  
Auto Ignition Temperature: N/A  
Partition Coefficient: n-octanol/water: N/A  
Decomposition Temperature: N/A

## SECTION 10. STABILITY AND REACTIVITY

STABILITY:  
STABLE  
CONDITIONS TO AVOID (STABILITY):  
CONTACT WITH POWERFUL OXIDIZING AGENTS SUCH AS FLUORINE, CHLORINE, TRIFLUORIDE, MANGANESE TRIOXIDE, OXYGEN TRIFLUORIDE  
INCOMPATIBILITY (MATERIAL TO AVOID):  
CAN REACT VIGOROUSLY WITH STRONG OXIDIZING AGENTS- SEE CONDITIONS TO AVOID  
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:  
SILICA WILL DISSOLVE IN HYDROCHLORIC ACID TO FORM A CORROSIVE GAS- SILICON TETRAFLUORIDE  
HAZARDOUS POLYMERIZATION:  
WILL NOT OCCUR.

## SECTION 11. TOXICOLOGICAL INFORMATION

Silicon dioxide: Inhalation and retention of respirable crystalline silica can cause silicosis in several forms, chronic, accelerated or acute. Acute silicosis can occur with exposures to high concentrations of respirable crystalline silica over a very short time period, the symptoms of acute silicosis include progressive shortness of breath, fever, cough, and weight loss. Acute silicosis can be fatal. IARC concluded that there was sufficient evidence in humans for the carcinogenicity of crystalline silica in the form of quartz (Group 1). Exposure to respirable crystalline silica can also be associated with autoimmune disease, tuberculosis, kidney damage, non-malignant respiratory disease. For further information, the NIOSH Hazard Review- Occupational Effects of Occupational Exposure to Respirable Crystalline Silica published in April of 2002 should be reviewed.

## SECTION 12. ECOLOGICAL INFORMATION

Silicon Dioxide: There is no data that suggests that crystalline silica is toxic to birds, fish, invertebrates, microorganisms or plants.

## SECTION 13. WASTE DISPOSAL

WASTE DISPOSAL METHOD:  
DISPOSE OF THE MATERIAL IN A WASTE DISPOSAL SITE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS.

## SECTION 14. Transport Information

DOT: Not Regulated



IMO/IMDG Not regulated

## **SECTION 15. REGULATORY INFORMATION**

Silicon Dioxide: risk phrases: R 48/20 Harmful – Danger of serious damage to health by prolonged exposure through inhalation. Safety Phrases: S 22 – Do not breathe dust and S 38 – In case of insufficient ventilation, wear suitable respiratory equipment

Crystalline Silica (Silicon Dioxide) is on the TSCA list. NTP list as a known human carcinogen, California proposition 65 list as a known carcinogen, Massachusetts Toxic Use Reduction Act list as toxic, Pennsylvania Worker and community right to know Act list as a hazardous substance.

Crystalline Silica (Silicon Dioxide) is on the Canada DSL – WHMIS Classification D2A

Crystalline Silica is on the Australian Inventory of Chemicals Substances list, Japan Ministry of International Trade and Industry list, Korea Existing Chemicals Inventory with registry number 9212-5667 and the Phillipines Inventory of Chemicals and Chemical Substances list.

## **SECTION 16. OTHER INFORMATION**

DISCLAIMER: The information Contained herein is based on the data available and is believed to be accurate, However, the manufacturer makes no warranty expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Accordingly, we assume no responsibility for injury from the use of this product.

N/A = Not Available

See Section 1 for date of preparation