



Safety Data Sheet

Seal Bond FCS-406

Revision Date: November 9, 2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: FCS-406 PART A
PRODUCT CODES: FCS-406 PART A

MANUFACTURER: Seal Bond
STREET ADDRESS: 14851 Michael Lane
CITY, STATE, ZIP: Spring Lake, MI 49456

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PREPARED BY: Kelly Barnes

Chemical Name or Class: Amine mixture

SECTION 2. HAZARDS IDENTIFICATION

Hazard Overview

GHS Classification: Skin corrosion/irritation category 2, Serious eye irritation category 1, Specific target organ toxicity – single exposure category 3 Acute hazard to aquatic environment category 3

GHS Label Elements and Precautionary Statements:



Label Elements:

Hazard Statements:

Warning: Causes skin irritation

Danger: Causes serious eye damage

Warning: May cause drowsiness or dizziness

Harmful to aquatic life

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 P271 Use only outdoors or in a well-ventilated area.
 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.
 P310 If in eyes, immediately call a POISON CENTER or doctor/physician.
 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

Other Non-classifiable potential hazards
 Carcinogen category 1 and 2

HMIS HAZARD CLASSIFICATION

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

POTENTIAL HEALTH EFFECTS

EYES:
 THIS MATERIAL CAN CAUSE EYE IRRITATION OR REDNESS. HIGH VAPOR CONCENTRATIONS CAN CAUSE SEVERE IRRITATION TO THE EYES.
 SKIN:
 IRRITATION TO THE SKIN CAN OCCUR BUT DERMAL TOXICITY IS LOW.
 INGESTION:
 INGESTION OF MATERIAL CAN CAUSE NAUSEA OR OTHER SIMILAR RESPONSES.
 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: yes IARC: yes

ADDITIONAL CARCINOGENICITY INFORMATION:

Some colors may contain carbon black - Explanation Of Carcinogenicity: IARC MONOGRAPHS ON EVALUATION OF CARCINOGENIC RISK OF CHEMICALS TO MAN, VOL 65, PG 149, 1996: GROUP 2B. 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. Titanium Dioxide is listed by IARC as possibly carcinogenic to humans (group 2B). Component Acetic Acid: Chronic effects on humans – Mutagenetic for mammalian somatic cells. Mutagenic for bacteria and yeast. Component CAS# 107-98-2: Has been reported to be toxic to fetus in laboratory animals. Component CAS# 8052-41-3: 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.

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>
1,2 ETHANE DIAMINE, N-(2-AMINO ETHYL)	111-40-0	1 ppm	1 ppm	NONE	<1.0
TETRAETHYLENE PENTAMINE	112-57-2	NONE	NONE	NONE	<1.0
ETHYLENEDIAMINE	107-15-3	10 ppm	10 ppm	10 ppm	<1.0
PENTAETHYLENE HEXAMINE	4067-16-7	NONE	NONE	NONE	<1.0
Polymer of polymerized linseed oil, pentaethylene hexamine, DGEBA-epichlorohydrin copoly, form, DETA and PGE	CAS# not available	NONE	NONE	NONE	10-30

WATER	7732-18-5	NONE	NONE	NONE	30-60
PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	100 ppm	100 ppm	150 ppm	10-30
GLACIAL ACITIC ACID	64-19-7	10 ppm	10 ppm	15 ppm	0.1-1
STODDARD SOLVENT	8052-41-3	100ppm	100 ppm	NONE	0.1-1
2-ETHYL-1-HEXANOL	104-76-7	NONE	NONE	NONE	0.1-1
*GLYCOL ETHER 2-BUTOXYETHANOL	111-76-2	5 ppm	25 ppm	NONE	0.1-1
PROPIETARY ADDITIVE-	NJTSRN 80963-5170	NONE	NONE	NONE	0.1-1
Mica	12001-26-2	20mppcf	3mg/m	NONE	1-5
Triethanolamine	102-71-6	NONE	5mg/m3	NONE	0.1-1

Colors may contain the following @ 10-30%:

*ETHYLENE GLYCOL	107-21-1	50PPM	50PPM	50PPM	0.1-1
Aqueous colorant additive	NJTSRN 56705700001-5043P	NONE	NONE	NONE	
Aqueous colorant additive	NJTSRN 56705700001-5032P	NONE	NONE	NONE	
Aqueous colorant additive	NJTSRN 56705700001-5756P	NONE	NONE	NONE	
Aqueous colorant additive	NJTSRN 56705700001-5024P	NONE	NONE	NONE	
Aqueous colorant additive	NJTSRN 56705700001-5023P	NONE	NONE	NONE	
Aqueous colorant additive	NJTSRN 56705700001-5727P	NONE	NONE	NONE	
Aqueous colorant additive	NJTSRN 56705700001-5749P	NONE	NONE	NONE	
Aqueous colorant additive	NJTSRN 56705700001-5579P	NONE	NONE	NONE	
Diethylene Glycol	111-46-6	10mg/m3	10mg/m3	NONE	0.1-1
Talc	14807-96-6	20mg/m3	20mg/m3	20mg/m3	0.1-1
*crystalline silica (as a component of talc)	14808-60-7	10mg/m3	.1mg/m3	.1mg/m3	0.1-1
Chlorite	71949-90-1	NONE	NONE	NONE	
*Chromium III oxide (green may contain up to 5%)	1308-38-8	0.5 mg/m3	0.5 mg/m3	NONE	0.1-1
Propylene glycol	57-55-6	NONE	NONE	NONE	
Aqueous colorant additive	NJTSRN 56705700001-6584P	NONE	NONE	NONE	
Aqueous colorant additive	NJTSRN 56705700001-5030P	NONE	NONE	NONE	
Iron oxide	1332-37-2	5mg/m3	15mg/m3	NONE	
Petroleum distillates	64741-88-4	400ppm	400ppm	10mg/m3	
Petroleum distillates	64741-89-5	5mg/m3	5mg/m3	10mg/m3	
C.I. Pigment Yellow	51274-00-1	NONE	NONE	NONE	
Iron hydroxide oxide	20344-49-4	NONE	NONE	NONE	
Aqueous colorant additive	NJTSRN 56705700001-5747P	NONE	NONE	NONE	
isopropanol	67-63-0	400ppm	400ppm	500ppm	
Barium Sulfate	7727-43-7	5mg/m3	10mg/m3	NONE	
Tributyl Phosphate	126-73-8	5mg/m3	2.5mg/3	NONE	
Aqueous colorant additive	NJTSRN 56705700001-5704P	NONE	NONE	NONE	
Aqueous colorant additive	NJTSRN 56705700001-5071P	NONE	NONE	NONE	
Aqueous colorant additive	NJTSRN 56705700001-5756P	NONE	NONE	NONE	
Chlorite	71949-90-1	NONE	NONE	NONE	
Aqueous colorant additive	NJTSRN 56705700001-6031P	NONE	NONE	NONE	
Aqueous colorant additive	NJTSRN 56705700001-6861P	NONE	NONE	NONE	
Aqueous colorant additive	NJTSRN 56705700001-6584P	NONE	NONE	NONE	
*CARBON	1333-86-4	3.5PPM	3.4PPM	NONE	0.1-1
Kaolin	1332-58-7	15mg/m3	2mg/m3	NONE	
Titanium Dioxide	13463-67-7	10mg/m3	10mg/m3	5mg/m3	

SECTION 2 NOTES: *Indicates toxic chemical(s) subject to reporting requirements of section 313 of Title III and of 40 CFR 372.

PROPYLENE GLYCOL MONOMETHYL ETHER CAS #107-98-2 (ACGIH) STEL= 150 PPM.

FOLLOW 311B (2) (A) 40 CRF 116, 117, GUIDELINES. FOLLOW TSCA 8 (A) 40 CFR 712, 47 FR 26992 GUIDELINES

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: N/A
(% by volume) LOWER: N/A

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 FIGHTERS. 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 ABSORBANT 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.

VENTILATION :

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

PROTECTIVE GLOVES:

IMPERVIOUS GLOVES, NEOPRENE OR RUBBER.

EYE PROTECTION:

SPLASH PROOF GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

CLEAN BODY COVERING CLOTHING AS WELL AS APRON FOOTWEAR OR OTHER EQUIPMENT SHOULD BE USED AS DEEMED NECESSARY TO AVOID CONTACT WITH THE MATERIAL.

WORK HYGIENIC PRACTICES:

OBSERVE GENERAL GOOD HYGIENIC PRACTICES.

SEE SECTION THREE FOR OCCPATONAL EXPOSURE LIMIT VALUES.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: LOW VISCOSITY LIQUID IN VARYING COLORS

BOILING POINT OR RANGE ° F: 212

VAPOR DENSITY (AIR = 1): N/A

SPECIFIC GRAVITY (H₂O = 1): 1.2
EVAPORATION RATE: N/A
SOLUBILITY IN WATER: EMULSIFIABLE

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 CONTACT WITH OPEN FLAMES AND ALL SOURCES OF IGNITIONS AND SPARKS.

INCOMPATIBILITY (MATERIAL TO AVOID):

AVOID CONTACT WITH STRONG OXIDIZING AGENTS, MINERAL ACIDS AND EPOXY RESINS IN UNCONTROLLED AMOUNTS.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

CO, CO₂, NOX

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

SECTION 11. TOXICOLOGICAL INFORMATION

No data for the product itself.

Component data:

Component CAS# 111-40-0: inhalation: LC50 (4hr) <0.3 mg/l (rat); Skin: LD50 >5000 mg/kg (rabbit) Ingestion: LD50 2960 mg/kg (rat). Severe Eye irritation, Moderate skin irritation, May cause sensitization by skin contact.

Component Acetic Acid: Absorbed through the skin. Estimated 4 hr exposure Oral LD50 3310 mg/kg (rat), Estimated Dermal LD50 1060 mg/kg (rabbit), Vapor LC50 5620 mouse). Chronic effects on humans – Mutagenetic for mammalian somatic cells. Mutagenic for bacteria and yeast. May cause damage to kidneys, mucous membranes, skin, teeth. Corrosive by inhalation or skin contact, corrosive to eyes.

Component CAS# 107-98-2: Ingestion LD50 rat 4016 mg/kg, Dermal LD50 rabbit >2000 mg/kg, Inhalation LC50 6 hr Vapor, rat >25.8 mg/l. May cause eye or skin irritation. May effect Kidney or liver. Has been reported to be toxic to fetus in laboratory animals.

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 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.

Component Ethylene Glycol CAS# 107-21-1: The human oral lethal dose is approximately 1.6 g/kg. Ethylene glycol may aggravate existing kidney disease or cause sensitization LD50 oral (rat) – 4000 mg/kg.

Component C.I. Pigment yellow CAS# 51274-00-1: LD50 Oral (rat) >5000 mg/kg. LD50 Dermal (rabbit) = 10500 mg/kg. Ethylene glycol has been shown to cause dose related teratogenic effects in rats and mice when given by gavage at high concentrations.

Component talc CAS# 14807-96-6: Carcinogenic effects – this component may contain crystalline silica dust can cause silicosis, a form of progressive pulmonary fibrosis. Inhalable crystalline silica is listed by IARC as a group I carcinogen (lung) based on sufficient evidence in occupationally exposed humans and sufficient evidence in animals. Crystalline Silica is also listed by the NTP as a known human carcinogen

Component diethylene Glycol CAS# 111-46-6: Estimated human oral lethal dose is 1.0 to 1.2 g/kg. LD50 Oral (rat) = 20760 mg/kg. LD50 Dermal (rabbit) = 13300 mg/kg. diethylene glycol vapors have caused central nervous system effects in mice and rats, but no such effects have been documented in humans.

Component NJTSRN 56705700001-5043P: LD50 oral (rat) = 3000 mg/kg. Acute dermal LD50 (rabbit) = 4400 mg/kg

Component Chromium III oxide CAS# 1308-38-8: LD50 Oral (rat) >5000 mg/kg.

Component Propylene glycol CAS# 57-55-6: LD50 oral (rat) >2000 mg/kg. Acute Dermal LD50 (rabbit) >10000 mg/kg

Component NJTSRN 56705700001-6584P: LD50 oral (rat) = 1300 mg/kg

Component NJTSRN 56705700001-5024P: LD50 Oral (rat) = 1900 mg/kg. Dermal LD50 (rat) = 1110 mg/kg.

Component NJTSRN 56705700001-5023: LD50 Oral (rat) = 1900 mg/kg. Dermal LD50 (rabbit) >10000 mg/kg
Component NJTSRN 56705700001-5030P: .No data
Component Petroleum distillates CAS# 64741-88-4: no data
Component Petroleum distillates CAS# 64741-89-5: no data
Component NJTSRN 56705700001-5747: LD50 Oral (rat) = .2000 mg/kg.
Component NJTSRN 56705700001-5704: .No data
Component NJTSRN 56705700001-5071P: .No data
Component NJTSRN 56705700001-6031P: .No data
Component NJTSRN 56705700001-6861P: LD50 Oral (rat) = 1836 mg/kg. moderate skin irritation.
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 Carbon: IARC lists carbon as a possible human carcinogen Category 2B. LD50 – Intravenous, mouse = 440 mg/kg. Contains Proposition 65 Chemicals .Carbon: is listed on TSCA and DSL Canada
Component CAS# 112-57-2: Toxicological Data on Ingredients: Tetraethylenepentamine: ORAL (LD50): Acute: 3990 mg/kg [Rat]. DERMAL (LD50): Acute: 0.66 mg/kg [Rabbit]. Very hazardous in case of skin contact (irritant), of ingestion, . Hazardous in case of skin contact (corrosive, sensitizer, permeator), of eye contact (corrosive), of inhalation (lung corrosive).
Component Triethanolamine CAS# 102-71-6: LD50 Dermal (rat) = 2000 mg/kg. LD50 Oral (rabbit) >2000 mg/kg. LD50 Oral (rat) = 4190 mg/kg. Component may cause skin or eye irritation.

SECTION 12. ECOLOGICAL INFORMATION

No data for the product itself.

Component data:

Component Acetic Acid: Ecotoxicity in water(LC50) 423 mg/l 24 hours [Fish (goldfish)] , 88 ppm 96 hours [Fish (fathead minnow)], 75ppm 96 hours [Fish (bluegill sunfish)] >100 ppm 96 hours [Daphnia]. BOD-5: 0.34-0.88 g/oxygen/g

Component CAS@ 107-98-2: Bioconcentration potential is low (BCF less than 100). Potential for mobility in soil is high (KOC between 0 and 50). Material is readily biodegradable and is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100mg/l in the most sensitive species tested.. LC50 fathead minnow 96 hr 20800 mg/l, LC50 water flea 48 hr lethally 23300 mg/l, EbC50 green algae biomass growth inhibition 7 d >1000 mg/l. Toxicity to microorganisms IC50 activated sludge > 1000 mg/l

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

Component talc CAS# 14807-96-6: There is no data that suggests that crystalline silica is toxic to birds, fish, invertebrates, microorganisms or plants.

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# 112-57-2: The products of degradation are less toxic than the product itself.

Component Triethanolamine CAS# 102-71-6: LC50/96hr/48hr/24hr = 450 – 1000 mg/l (bluegill/96hr); 11800 mg/l (fresh water fish/96hr); 1386 mg/l (daphnia Magna/24hr); 169mg/l (algae/96hr).

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

No data for the product itself.

Component data:

Component CAS# 4067-16-7, 112-57-2, 111-40-0, 107-15-3 on TSCS List, OSHA hazard class – Irritant. Regulatory List: On TSCA, on EINECS, DSL, AICS, ENCS, ECL, SEPA, PICCS.

Component Acetic Acid: On the Right to Know list for Rhode Island, Pennsylvania, Florida, Minnesota, Massachusetts, New Jersey, and California director's List of hazardous substances. Listed on TSCA. Listed on DSL Canada, European Inventory. EEC R-35 Causes severe burns.

Component CAS# 107-98-2; on the PA right to know list. Product is on the TSCA list and DSL Canada

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# 12001-26-2: On TSCA list. DSL Canada Listed and is considered an uncontrolled product. Although not on the California Proposition 65 list, it may contain ppm quantities of materials regulated under California’s safe drinking water and toxic enforcement act of 1986. such as 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.

Component 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 Philippines Inventory of Chemicals and Chemical Substances list.

Component Ethylene Glycol CAS# 107-21-1: This component is a listed as an air pollutant under the clean air act (112). This component is subject to reporting requirements of section 313 of title III of the superfund amendments and reauthorization act of 1986 and 40CFR part 372. This component is a CERCLA listed chemical. This Component is listed on the Canada DSL, TSCA, EINECS, AICS, TCCL, PICCS lists.

Component NJTSRN 56705700001-5043P: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, TCCL, PICCS lists.

Component NJTSRN 56705700001-5032P: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, TCCL, PICCS lists.

Component diethylene Glycol CAS# 111-46-6: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, lists.

Component talc CAS# 14807-96-6 may contain Crystalline Silica (Silicon Dioxide) which 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.

Component Chlorite CAS# 71949-90-1: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, TCCL, PICCS lists.

Component NJTSRN 56705700001-5756P: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, TCCL, PICCS lists.

Component NJTSRN 56705700001-6584P: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, TCCL, PICCS lists.

Component NJTSRN 56705700001-5024P: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, lists.

Component NJTSRN 56705700001-5023P: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, lists.

Component NJTSRN 56705700001-5727P: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, lists.

Component NJTSRN 56705700001-5749P: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, lists.

Component NJTSRN 56705700001-5579P: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, lists.

Component NJTSRN 56705700001-5030P: This Component is listed on the Canada DSL, TSCA, lists.

Component Iron Oxide CAS# 1332-37-2: This Component is listed on the Canada DSL, TSCA, lists.

Component Petroleum distillates CAS# 64741-88-4: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, lists.

Component Petroleum distillates CAS# 64741-89-5: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, lists.

Iron hydroxide oxide CAS# 20344-49-4: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, lists.

Component NJTSRN 56705700001-5747: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, TCCL, PICCS lists.

Component Tributyl phosphate CAS# 126-73-8: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, TCCL, PICCS lists.

Component Barium Sulfate CAS# 7727-43-7: This Component is listed on the Canada DSL, TSCA, EINECS, AICS,

Component isopropanol CAS# 67-63-0: This component is on the TSCA and Canada DSL lists.

Component NJTSRN 56705700001-5578P: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, TCCL, PICCS lists.

Component NJTSRN 56705700001-5572P: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, TCCL, PICCS lists.

Component NJTSRN 56705700001-5653P: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, TCCL, PICCS lists.

Component NJTSRN 56705700001-5071P: This Component is listed on the Canada DSL, TSCA, lists.

Component NJTSRN 56705700001-5704P: This Component is listed on the Canada DSL, TSCA, lists.

Component NJTSRN 56705700001-5756P: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, TCCL, PICCS lists.

Component Chlorite CAS# 71949-90-1: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, TCCL, PICCS lists.

Component NJTSRN 56705700001-6031P: This Component is listed on the Canada DSL, TSCA, lists.

Component NJTSRN 56705700001-6861P: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, TCCL, PICCS lists.

Component NJTSRN 56705700001-6584P: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, TCCL, PICCS lists.

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 Kaolin CAS# 1332-58-7: This Component is listed on the Canada DSL, TSCA, EINECS, AICS, TCCL, PICCS lists.

Component CAS# 12001-26-2: On TSCA list. DSL Canada Listed and is considered an uncontrolled product. Although not on the California Proposition 65 list, it may contain ppm quantities of materials regulated under California’s safe drinking water and toxic enforcement act of 1986 such as 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.

Component CAS# 112-57-2: is on Pennsylvania RTK:Massachusetts RTK: New Jersey: Harmful in contact with skin and if swallowed. Causes burns. May cause sensitization by skin contact.

Component Triethanolamine CAS# 102-71-6: Component is on the TSCA, Canada DSL, EINECS, ESCS, KECL, HSN0, NECSI, AICS and ENCS 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-406

Revision Date: November 9, 2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: FCS-406 PART B
PRODUCT CODES: FCS-406 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: 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

HMIS HAZARD CLASSIFICATION

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

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 CONCENTRATIONS OF VAPOR. EYES: INJURY IS UNLIKELY BUT STAIN FOR EVIDENCE OF CORNEAL INJURY.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY INGREDIENTS OF THIS PRODUCT ARE REGULATED AS CARCINOGENS.

CARCINOGENICITY

OSHA: NO NTP: NO IARC: NO

ADDITIONAL CARCINOGENICITY INFORMATION:

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					
BISPHENOL A	25068-38-6	NONE	NONE	NONE	60-100
ALKYL GLYCIDYL ETHER	68609-97-2	NONE	NONE	NONE	10-30

SECTION 3 NOTES:

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

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 IMMEDIATELY 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: 200+F

METHOD USED:

SETA FLASH

EXTINGUISHING MEDIA:

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

SPECIAL FIRE FIGHTING PROCEDURES:

DO NOT ENTER CONFINED FIRE 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:

NO UNUSUAL FIRE HAZARDS 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: LOW VISCOSITY LIQUID – AMBER CLEAR or COLORS

BOILING POINT OR RANGE: 200+ F

VAPOR DENSITY (AIR = 1): Not available

SPECIFIC GRAVITY (H2O = 1): 1.1

EVAPORATION RATE: not available

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:

CO₂, 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

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

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.

EPA SARA Title III Section 313 components above the de minimus level: none

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