



Safety Data Sheet

Seal Bond FCS-412

Revision Date: November 17, 2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: FCS-412 Part A Black
PRODUCT CODES: FCS-412 Part A Black

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: Solid Epoxy and solvent mixture

SECTION 2. HAZARDS IDENTIFICATION

Hazard Overview

GHS Classification: Flammable liquid category 3, Specific target organ toxicity following repeated exposure category 2, Aspiration hazard category 2, Acute dermal toxicity category 4, Skin corrosion/irritation category 2, skin sensitizer category 1B, Serious eye irritation category 2, Acute toxicity inhalation category 4, Acute hazard to aquatic environment category 3
GHS Label Elements and Precautionary Statements:



Label Elements:

Hazard Statements:

Warning: Flammable liquid and vapor.
Warning: May cause damage to organs (auditory system) through prolonged or repeated exposure
Warning: May be harmful if swallowed and enters airways
Warning: Harmful in contact with skin
Warning: Causes skin irritation
Warning: May cause an allergic skin reaction
Warning: Causes serious eye irritation.
Warning: Harmful if inhaled
Harmful to aquatic life.
Precautionary statements:

P102 Keep out of reach of children.
P103 Read label before use
P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/.../equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P260 Do not breathe dust/fume/gas/mist/vapours/spray
P264 Wash skin thoroughly after handling.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P271 Use only outdoors or in a well-ventilated area
Response
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.
P370 + P378 In case of fire: Use FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL for extinction.
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.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331 Do NOT induce vomiting.
P302 + P352 IF ON SKIN: wash with plenty of soap and water
P312 Call a POISON CENTER or doctor/physician if you feel unwell
P361+P364 Take off immediately all contaminated clothing and wash it before reuse.
P302 + P352 IF ON SKIN: wash with plenty of soap and water.
P333 + P313 IF SKIN irritation or rash occurs: Get medical advice/attention.
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.
P273 Avoid release to the environment
Storage:
P403 + P235 Store in a well-ventilated place. Keep cool
P405 Store locked up.
P233 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

Carcinogenicity category 2, (Ethyl benzene at less than 17% in a study done by the NTP was determined to not be carcinogenic.)

HMIS HAZARD CLASSIFICATION

HEALTH: 2 FLAMMIBILITY: 3 REACTIVITY: 0 PERSONAL PROTECTIVE EQUIPMENT: G

POTENTIAL HEALTH EFFECTS

EYES:

CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, OR BLURRED VISION.

SKIN:

MAY CAUSE IRRITATION, DEFATTING AND DERMATITIS.

INGESTION:

CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITTING, DIARRHEA AND ASPIRATION OF MATERIAL INTO THE LUNGS CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL.

INHALATION:

CAN CAUSE NAUSEA AND RESPIRATORY IRRITATION, DIZZINESS, WEAKNESS, FATIGUE, HEADACHE AND POSSIBLE UNCONSCIOUSNESS

HEALTH HAZARDS (ACUTE AND CHRONIC):

EPOXY RESINS CAN CAUSE SENSITIZATION BY EXPOSURE THROUGH CONTACT OR HIGH CONCENTRATIONS OF VAPOR. OVER EXPOSURE TO THIS MATERIAL CAN CAUSE CARDIAC ABNORMALITIES, ANEMIA, LIVER ABNORMALITIES, KIDNEY DAMAGE OR EVEN EYE DAMAGE.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY CONDITIONS OR OTHER ALLERGIC RESPONSE.

CARCINOGENICITY

OSHA: NO NTP: yes IARC: yes

ADDITIONAL CARCINOGENICITY INFORMATION:

Product may contain ethyl benzene as a component of xylene (IARC 2B) contains carbon black - Explanation Of Carcinogenicity for carbon: IARC MONOGRAPHS ON EVALUATION OF CARCINOGENIC RISK OF CHEMICALS TO MAN, VOL 65, PG 149, 1996: 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>
Solid Epoxy Resin	25036-25-3	NONE	NONE	NONE	40-70
*Xylene	1330-20-7	100PPM	100PPM	150PPM	28
*ethyl benzene (as a component of xylene)	100-41-4	100ppm	100ppm	125ppm	0-5.0
*toluene (as a component of xylene)	108-88-3	200ppm	20ppm	150ppm	0-0.2
*Carbon black	1333-86-4	3.5 ppm	3.5 ppm	none	8.0

SECTION 3 NOTES:

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

ACGIH STEL=150PPM FOR XYLENE.

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:

DO NOT INDUCE VOMITING, KEEP PERSON WARM AND CONSULT A PHYSICIAN IMMEDIATELY.

INHALATION:

REMOVE VICTIM TO FRESH AIR AND ADMINISTER OXYGEN IF NECESSARY.

SECTION 5. FIRE-FIGHTING MEASURES

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

FLASH POINT: 78F

METHOD USED:

SETA FLASH

EXTINGUISHING MEDIA:

FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL

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. PRESENCE OF SOLVENTS IN PRODUCTS MAY REQUIRE GROUNDING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

IF FIRE OCCURS, SOLVENTS MAY PRODUCE EXCESSIVE PRESSURE. SEALED DRUMS MAY RUPTURE AND IGNITE. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND AND IGNITE BY ANY SOURCE OF IGNITION. NEVER USE A CUTTING OR WELDING TORCH NEAR CONTAINERS (EVEN EMPTY). ALL 5 GALLON AND LARGER CONTAINERS SHOULD BE GROUNDED BEFORE TRANSFERRING MATERIAL.

SECTION 6. RELEASE MEASURES

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

WEAR RESPIRATOR AND PROTECTIVE CLOTHING. REMOVE ALL SOURCES OF IGNITIONS. REMOVE EXCESS WITH VACUUM TRUCK AND TAKE UP THE REMAINDER WITH AN ABSORBENT MATERIAL 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. KEEP MATERIAL AWAY FROM ALL SOURCES OF IGNITION.

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. WEAR APPROPRIATE SAFETY EQUIPMENT AND RESPIRATOR AT ALL TIMES WHEN VENTILLATION IS NOT SUFFICIENT TO CONTROL VAPORS.

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. ENGINEERING OR ADMINISTRATIVE MEASURES SHOULD BE TAKEN TO REDUCE THE RISK AND EXPOSURE.

VENTILATION:

PROVIDE SUFFICIENT MECHANICAL (GENERAL AND LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TOXIC LEVEL VALUES.

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 HYGENIC PRACTICES.

SEE SECTION THREE FOR OCCPATONAL EXPOSURE LIMIT VALUES.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Black LIQUID WITH SOLVENT ODOR

BOILING POINT OR RANGE: 279+ F

VAPOR DENSITY (AIR = 1): Not available

SPECIFIC GRAVITY (H2O = 1): 1.0

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 AS WELL AS ALL SOURCES OF IGNITION SUCH AS SPARKS, HEATERS, AND STATIC DISCHARGES ETC.

INCOMPATIBILITY (MATERIAL TO AVOID):

AVOID AMINE CURING AGNETS IN UNCONTROLLED AMOUNTS AND STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

MAY FORM TOXIC CHEMICALS, CARBON DIOXIDE, CARBON MONOXIDE AND VARIOUS HYDROCARBONS ETC..

HAZARDOUS POLYMERIZATION:
WILL NOT OCCUR.

SECTION 11. TOXICOLOGICAL INFORMATION

No data for the product itself.

Component data:

Component Solid Epoxy Resin CAS# 25036-25-3: May Cause Sensitization by skin contact or through inhalation.

Component Xylene: Inhalation LC50 26800ppm, Skin LD50 2000 mg/kg, Ingestion LD50 4.3 g/kg. Exposure may effect skin, eye, liver, kidney, nervous system, respiratory system and lungs. High concentrations may lead to nervous system effects. Repeated overexposure has produced toxic effects in developing and young laboratory animals. Aspiration into lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal. Xylene may contain ethyl benzene, and toluene. Ethyl benzene has shown limited evidence of a carcinogenic effect.

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

SECTION 12. ECOLOGICAL INFORMATION

No data for the product itself.

Component data:

Component Xylene: Acute Toxicity: Fish: Toxic 1 < LCECIC50 < 10mg/l, Aquatic Invertebrates: Toxic 1 < LC/EC/IC50 <10mg/l, Algae: Toxic 1 < LC/EC/IC50 <10 mg/l. Mobility – floats on water. If it enters the soil it will be highly mobile and may contaminate groundwater. Oxidises rapidly by photo-chemical reactions in air.

SECTION 13. WASTE DISPOSAL

WASTE DISPOSAL METHOD:

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

SECTION 14. Transport Information

DOT: UN1993, FLAMMABLE LIQUID N.O.S. (CONTAINS XYLENE), 3, PG III

IMO/IMDG: UN1993, FLAMMABLE LIQUID N.O.S. (CONTAINS XYLENE), 3, PG III

SECTION 15. REGULATORY INFORMATION

No data for the product itself.

Component data:

All Chemicals on TSCA list

This product contains chemicals listed on California Proposition 65 list.

This product contains Chemical(s) subject to reporting requirements section 313 – xylene @ <26%. % (ethyl benzene <5.0% and toluene <0.1% as a component of xylene).

All components of this product are on the Canadian Domestic Substance list

Component Xylene: Xylene contains EPCRA section 313 chemicals subject to the reporting requirements of the emergency planning and community right to know act of 1968. (Maximum wt % for components of xylene are: M-Xylene CAS# 108-38-3 is 46%, P-Xylene CAS# 106-42-3 is 20%, Ethyl Benzene CAS# 100-41-4 is 19%, O-Xylene CAS# 95-47-6 is 16%.. Xylene and its components are on the California Proposition 65 list for developmental toxicity, Reproductive toxicity and carcinogen list. Ingredients are on the TSCA list, DSL Canada, AICS, China, EINECS, ENCS, Korea, New Zealand, Phillipines inventory lists and on the Massachusetts, New Jersey, Pennsylvania right to know lists Ethyl Benzene a component of xylene has been designated by IARC as a possible carcinogen to humans based on increased tumor incidence in laboratory animals. risk phrases R10 Flammable R20/21 Harmful by inhalation and in contact with skin, R38 irritating to skin, S25 Avoid contact with eyes.

Component Solid Epoxy Resin on the Pennsylvania right to know list

WHMIS HAZARD CLASSIFICATION: Class B Division 2, Class D Division 2B

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

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-412

Revision Date: November 17, 2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: FCS-412 Part B Black
PRODUCT CODES: FCS-412 Part B Black

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: Polyamide and solvent mixture

SECTION 2. HAZARDS IDENTIFICATION

Hazard Overview

GHS Classification: Flammable liquid category 3, Specific target organ toxicity following repeated exposure category 2, Specific target organ toxicity – single exposure category 3, Aspiration hazard category 2, Acute dermal toxicity category 4, Skin corrosion/irritation category 2, skin sensitizer category 1B, Serious eye irritation category 1, Acute toxicity inhalation category 4, Acute hazard to aquatic environment category 3

GHS Label Elements and Precautionary Statements:



Label Elements:

Hazard Statements:

Warning: Flammable liquid and vapor.

Warning: May cause damage to organs (auditory system) through prolonged or repeated exposure

Warning: May cause respiratory irritation.

Warning: May be harmful if swallowed and enters airways

Warning: Harmful in contact with skin

Warning: Causes skin irritation

Warning: May cause an allergic skin reaction

Danger: Causes serious eye damage.

Warning: Harmful if inhaled

Warning: harmful to aquatic life.

Precautionary statements:

P102 Keep out of reach of children.

P103 Read label before use

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/.../equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P260 Do not breathe dust/fume/gas/mist/vapours/spray

P271 Use only outdoors or in a well-ventilated area.

P264 Wash hands thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P271 Use only outdoors or in a well-ventilated area

Response

P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P370 + P378 In case of fire: Use FOAM, ALCOHOL FOAM, CO₂, DRY CHEMICAL for extinction.

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.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P331 Do NOT induce vomiting.

P302 + P352 IF ON SKIN: wash with plenty of soap and water

P361+P364 Take off immediately all contaminated clothing and wash it before reuse.

P333 + P313 IF SKIN irritation or rash occurs: Get medical advice/attention.

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.

P273 Avoid release to the environment

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool

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

Carcinogenicity category 2, (Ethyl benzene at less than 17% in a study done by the NTP was determined to not be carcinogenic.)

HMIS HAZARD CLASSIFICATION

HEALTH: 2 FLAMMABILITY: 3 REACTIVITY: 0 PERSONAL PROTECTIVE EQUIPMENT: G

POTENTIAL HEALTH EFFECTS

EYES:

CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, OR BLURRED VISION.

SKIN:

MAY CAUSE IRRITATION, DEFATTING AND DERMATITIS.

INGESTION:

CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, DIARRHEA AND ASPIRATION OF MATERIAL INTO THE LUNGS CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL.

INHALATION:

CAN CAUSE NAUSEA AND RESPIRATORY IRRITATION, DIZZINESS, WEAKNESS, FATIGUE, HEADACHE AND POSSIBLE UNCONSCIOUSNESS

HEALTH HAZARDS (ACUTE AND CHRONIC):

AMINE RESINS CAN CAUSE SENSITIZATION BY EXPOSURE THROUGH CONTACT OR HIGH CONCENTRATIONS OF VAPOR. OVER EXPOSURE TO THIS MATERIAL CAN CAUSE CARDIAC ABNORMALITIES, ANEMIA, LIVER ABNORMALITIES, KIDNEY DAMAGE OR EVEN EYE DAMAGE

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY CONDITIONS OR OTHER ALLERGIC RESPONSE.

CARCINOGENICITY

OSHA: NO NTP: yes IARC: yes

ADDITIONAL CARCINOGENICITY INFORMATION:

contains carbon black - Explanation Of Carcinogenicity for carbon: IARC MONOGRAPHS ON EVALUATION

OF CARCINOGENIC RISK OF CHEMICALS TO MAN, VOL 65, PG 149, 1996: GROUP 2B. Product may contain ethyl benzene as a component of xylene (IARC 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>
*Xylene	1330-20-7	100PPM	100PPM	150PPM	31
*ethyl benzene (as a component of xylene)	100-41-4	100ppm	100ppm	125ppm	0-6.0
*toluene (as a component of xylene)	108-88-3	200ppm	20ppm	150ppm	0-0.2
Triethylene tetramine	112-24-3	NONE	NONE	NONE	1-5
Dimer/tofa, reaction products with Teta	68082-29-1	NONE	NONE	NONE	15-40
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
*BUTANOL NORMAL	71-36-3	50PPM	50PPM	NONE	22
Carbon black	1333-86-4	3.5 ppm	3.5 ppm	none	13

SECTION 3 NOTES:

INDICATES TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III AND OF 40 CFR 372. (ACGIH STEL=150PPM FOR XYLENE). (BUTANOL: OSHA CEILING =50PPM, TWA-SKIN=50PPM, ACGIH TWA SKIN=50PPM). FOLLOW TSCA 8(d) 40 CFR 47 FR 387: RCRA 40 CFR 261; CWA 311 (b) (2) (a) 40 CFR 116,117 GUIDELINES

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:

DO NOT INDUCE VOMITING, KEEP PERSON WARM AND CONSULT A PHYSICIAN IMMEDIATELY.

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: 11.2%

(% by volume) LOWER: 1.4%

FLASH POINT: 74F

METHOD USED:

SETA FLASH

EXTINGUISHING MEDIA:

FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL

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. PRESENCE OF SOLVENTS MAY REQUIRE GROUNDING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

IF FIRE OCCURS, SOLVENTS MAY PRODUCE EXCESSIVE PRESSURE. SEALED DRUMS MAY RUPTURE AND IGNITE. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND AND IGNITE BY ANY SOURCE OF IGNITION. NEVER USE A CUTTING OR WELDING TORCH NEAR CONTAINERS (EVEN EMPTY). ALL 5 GALLON AND LARGER CONTAINERS SHOULD BE GROUNDED BEFORE TRANSFERRING MATERIAL.

SECTION 6. RELEASE MEASURES

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

WEAR RESPIRATOR AND PROTECTIVE CLOTHING. REMOVE ALL SOURCES OF IGNITIONS. REMOVE EXCESS WITH VACUUM TRUCK AND TAKE UP THE REMAINDER WITH AN ABSORBENT MATERIAL 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. KEEP MATERIAL AWAY FROM ALL SOURCES OF IGNITION.

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. WEAR APPROPRIATE SAFETY EQUIPMENT AND RESPIRATOR AT ALL TIMES WHEN VENTILATION IS NOT SUFFICIENT TO CONTROL VAPORS.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

RESSPIRATORY PROTECTION:

USE A NIOSH APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVER EXPOSURE TO VAPOR IN ACCORDANCE WITH 29 CFR 1910.134. ENGINEERING OR ADMINISTRATIVE MEASURES SHOULD BE TAKEN TO REDUCE THE RISK AND EXPOSURE.

VENTILATION:

PROVIDE SUFFICIENT MECHANICAL (GENERAL AND LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TOXIC LEVEL VALUES.

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 BLACK LIQUID – SOLVENT ODOR

BOILING POINT OR RANGE: 200 TO 279 F

VAPOR DENSITY (AIR = 1): N/A

SPECIFIC GRAVITY (H₂O = 1): 0.90

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 AS WELL AS ALL SOURCES OF IGNITION SUCH AS SPARKS, HEATERS, AND STATIC DISCHARGES ETC.

INCOMPATIBILITY (MATERIAL TO AVOID):

AVOID EPOXY CURING AGENTS IN UNCONTROLLED AMOUNTS AND STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

MAY FORM TOXIC CHEMICALS, CARBON DIOXIDE, CARBON MONOXIDE AND VARIOUS HYDROCARBONS ETC..

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR.

SECTION 11. TOXICOLOGICAL INFORMATION

No data for the product itself.

Component data:

Component CAS# 68082-29-1 and CAS# 112-24-3: Acute Oral Toxicity LD50 (rat) >2000 mg/kg (estimate); Acute Dermal Toxicity LD50 (rabbit) >2000 mg/kg (estimate); Component has caused allergic sensitization in humans.

Component Xylene: Inhalation LC50 26800ppm, Skin LD50 2000 mg/kg, Ingestion LD50 4.3 g/kg. Exposure may effect skin, eye, liver, kidney, nervous system, respiratory system and lungs. High concentrations may lead to nervous system effects. Repeated overexposure has produced toxic effects in developing and young laboratory animals. Aspiration into lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal. Xylene may contain ethyl benzene, and toluene. Ethyl benzene has shown limited evidence of a carcinogenic effect.

Component Butanol CAS# 71-36-3: Acute Oral Toxicity LD50 = 790 mg/kg (rat) 4hr estimated. Acute Dermal Toxicity LD50 = 3400 mg/kg (rabbit) 4hr estimated. Acute toxicity of the Vapor LC50 = 8000 (rat) 4hr estimated

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.

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

SECTION 12. ECOLOGICAL INFORMATION

No data for the product itself.

Component data:

Component Xylene: Acute Toxicity: Fish: Toxic 1 < LCECIC50 < 10mg/l, Aquatic Invertabrates: Toxic 1 < LC/EC/IC50 <10mg/l, Algae: Toxic 1 < LC/EC/IC50 <10 mg/l. Mobility – floats on water. If it enters the soil it will be highly mobile and may contaminate groundwater. Oxidises rapidly by photo-chemical reactions in air.

Component Butanol CAS# 71-36-3: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. The products of degradation are more toxic.

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 IN A WASTE DISPOSAL SITE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL LAWS.

SECTION 14. Transport Information

DOT: UN1993, FLAMMABLE LIQUID N.O.S. (CONTAINS XYLENE, BUTANOLS), 3, PG III

IMO/IMDG: UN1993, FLAMMABLE LIQUID N.O.S. (CONTAINS XYLENE, BUTANOLS), 3, PG III

SECTION 15. REGULATORY INFORMATION

No data for the product itself.

Component data:

Component CAS# 68082-29-1 and CAS# 112-24-3 are on the TSCA list. Osha Hazard class – irritant, sensitizer. On the Canadian DSL, on the EINECS master inventory

Component Xylene: Xylene contains EPCRA section 313 chemicals subject to the reporting requirements of the emergency planning and community right to know act of 1968. (Maximum wt % for components of xylene are: M-Xylene CAS# 108-38-3 is 46%, P-Xylene CAS# 106-42-3 is 20%, Ethyl Benzene CAS# 100-41-4 is 19%, O-Xylene CAS# 95-47-6 is 16%). Xylene and its components are on the California Proposition 65 list for developmental toxicity, Reproductive toxicity and carcinogen list. Ingredients are on the TSCA list, DSL Canada, AICS, China, EINECS, ENCS, Korea, New Zealand, Phillipines inventory lists and on the Massachusetts, New Jersey, Pennsylvania right to know lists Ethyl Benzene a component of xylene has been designated by IARC as a possible carcinogen to humans based on increased tumor incidence in laboratory animals. risk phrases R10 Flammable R20/21 Harmful by inhalation and in contact with skin, R38 irritating to skin, S25 Avoid contact with eyes.

Component Butanol CAS# 71-36-3: Sara 313 – 40 CFR 372.65 chemical. CERCLA 40 CFR 302.4 (a) Chemical RQ=5000 pounds. On the TSCA list. On the DSL, AICS, ECL, EINECS, and ENCS lists. Butanol is on the Pennsylvania and New Jersey Right to Know lists

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

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