

Section -1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1. Product Identifier: E-400 / E-400X Base Coat (Part A)
 - Product Name: E-400 / E-400X Ablative Insulative Coating / Part A
 - Product reference: E-400 / E-400X Ablative Insulating Compound

1.2. Product Use:
 - Ablative Insulating Compound

1.3. Manufacturer's Name:
CAGE Code: 14439
Flamemaster Corp.
Chem Seal Division
13576 Desmond Street
Pacoima, CA 91333 – USA

1.3.1 Suppliers Name (if not manufacturer)

Technical Contact:
Flamemaster Corp.
Tel: 818-890-1401
Fax: 818-890-6001
www.flamemaster.com

Emergency Contact Information :
 See Below

Specification: AS1129 ABLATIVE COATING / BASE COAT PART A

NSN -NONE ISSUED FOR THIS PRODUCT

Emergency Contact:

CHEMTEL: WWW.CHEMTELINE.COM

Flamemaster Corporation Contract Number MIS2644301

Shipments of hazardous materials within United States, Canada, Puerto Rico, and U.S. Virgin Island should reference Chemtel's toll free phone number: 1-800-255-3924 - Reference Number MIS2644301

Shipments and safety applications outside of United States, Canada, Puerto Rico, and the U.S. Virgin Islands must reference Chemtel phone number +1-813-248-0585 - Reference Number MIS2644301

Collect Calls will be accepted. To ensure a bilingual operator please call collect.

Shipments originating in U.S.A. and going overseas must use both numbers.

Shipments originating overseas and destined for US, Canada, Puerto Rico or the Virgin Islands must also use both numbers.

Calls originating on board vessels should follow normal ship to shore protocols. Use international access number and alert the ship to shore operator you are involved in an emergency incident.

Shipments of hazardous materials within the listed countries should reference Chemtel's in-country phone numbers:

Australia : 1-300-954-583 : Reference Number MIS2644301

Brazil : 0-800-591-6042 : Reference Number MIS2644301

China : 400-120-0751 : Reference Number MIS2644301

India : 000-800-100-4086 : Reference Number MIS2644301

Mexico : 01-800-099-0731 : Reference Number MIS2644301

Section -2. HAZARD (S) IDENTIFICATION

OSHA/HCS STATUS: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

CLASSIFICATION OF THE MIXTURE:

FLAMMABLE LIQUID - CATEGORY 2
ASPIRATION HAZARD - CATEGORY 1
ACUTE TOXICITY, ORAL - CATEGORY 4
ACUTE TOXICITY (INHALATION) - CATEGORY 4
CARCINOGENICITY - Category 2
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
SKIN SENSITIZATION - CATEGORY 1
GERM CELL MUTAGENICITY-CATEGORY 2
TOXIC TO REPRODUCTION - CATEGORY 2
SPECIFIC TARGET ORGAN TOXICITY-SINGLE EXPOSURE - (NARCOTIC EFFECTS) - CATEGORY 3
SPECIFIC TARGET ORGAN TOXICITY-REPEAT EXPOSURE -CATEGORY 2
REPRODUCTIVE TOXICITY, EFFECTS ON OR VIA LACTATION
AQUATIC (CHRONIC) - CATEGORY 4

GHS LABEL REQUIREMENTS:

HAZARD PICTOGRAMS:



SIGNAL WORD : DANGER

HAZARD STATEMENTS:

HIGHLY FLAMMABLE LIQUID AND VAPOR - H225
MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS - H304
HARMFUL IF SWALLOWED - H302
HARMFUL IF INHALED - H332
SUSPECTED OF CAUSING CANCER - H351
CAUSES SKIN IRRITATION - H315
CAUSES SERIOUS EYE IRRITATION - H319
MAY CAUSE AN ALLERGIC SKIN REACTION - H317
SUSPECTED OF CAUSING GENETIC DEFECTS - H341
SUSPECTED OF DAMAGING FERTILITY. SUSPECTED OF DAMAGING THE UNBORN CHILD - H361fd
MAY CAUSE DROWSINESS OR DIZZINESS - H336
MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE - H373
MAY CAUSE HARM TO BREAST-FED CHILDREN - H362
MAY CAUSE LONG LASTING HARMFUL EFFECTS TO AQUATIC LIFE - H413

In the event of sanding, grinding, or abrading:

H372 Causes damage to organs through prolonged or repeated exposure.

Hazards Not Otherwise Classified (HNOC):

Sanding and grinding dust may be harmful if inhaled. Sanding and grinding dust may form combustible concentrations in air. Emits toxic fumes when heated.

GENERAL PRECAUTIONARY STATEMENTS:

P101: If medical advise is needed, have product container or label at hand.
P102: keep out of reach of children.
P103: Read label before use.

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PRECAUTIONARY STATEMENTS:

- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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.
- P260: Do not breathe dust / fumes / gas / mist / vapors / spray.
- P261: Avoid breathing dust / fumes / gas / mist / vapors / spray.
- P263: Avoid contact during pregnancy / while nursing.
- P264: Wash thoroughly after handling.
- P270: Do not eat, drink, or smoke when using this product.
- P271: Use only outdoors or in a well - ventilated area.
- P272: Contaminated work clothing should not be allowed out of the workplace.
- P273: Avoid release to the environment.
- P280: Wear protective gloves / protective clothing / eye protection / face protection.
- P281: Use personal protection equipment as required.
- P301+310: IF SWALLOWED: Immediately call a POISON CENTER / doctor / ...
- P301+312: IF SWALLOWED: Call a POISON CENTER / doctor / .../ if you feel unwell.
- P302+352: IF ON SKIN: Wash with plenty of water / ...
- P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
- P304+340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305+351+338: IF IN EYES: Rinse cautiously for several minutes. Remove contact lenses if present and easy to do-continue rinsing
- P308+313: If exposed: Call a POISON CENTER or doctor / physician.
- P312: Call a POISON CENTER / doctor /... / if you feel unwell.
- P314: Get medical advise / attention if you feel unwell.
- P321: Specific treatment...See Label Information
- P330: Rinse mouth
- P331: Do NOT induce vomiting.
- P332+313: If skin irritation occurs: Get medical advice / attention.
- P333+313: If skin irritation or a rash occurs: Get medical advice / attention.
- P337+313: If eye irritation persists: Get medical advice / attention.
- P362: Take off all contaminated clothing.
- P363: Wash contaminated clothing before reuse.
- P370+378: In case of fire: Use ... to extinguish.
- P403+233: Store in a well ventilated place. Keep container tightly closed.
- P403+235: Store in a well ventilated place. Keep cool.
- P405: Store locked up.
- P501: Dispose of contents / containers in accordance with local / regional / national / international regulations

SUPPLEMENTAL LABEL ELEMENTS:

Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of concentrations above recommended limits causes headaches, drowsiness and nausea and could lead to unconsciousness or possibly death.

Irritating to the mucous membranes and may cause the skin to become sensitized.

Avoid any contact with skin or clothing and wash thoroughly after handling.

Emits toxic fumes when heated.

HAZARDS NOT OTHERWISE CLASSIFIED:

Prolonged or repeated exposure may dry skin and / or cause skin irritation.

Sanding and grinding dust may be harmful if inhaled. Sanding and grinding dust may form combustible concentrations in air.

In the event of sanding, grinding, or abrading:

H372 Causes damage to organs through prolonged or repeated exposure.

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Section -3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical family : Mixture of organic compounds

For the hazards of the composition, (SDS see Section 2).

% BY WEIGHT IN PRODUCT-	HAZARDOUS INGREDIENT	CAS#-
<40%	Bisphenol A Epoxy Resin	25068-38-6
CAUSES SKIN IRRITATION - H315		
MAY CAUSE AN ALLERGIC SKIN REACTION - H317		
CAUSES SERIOUS EYE IRRITATION - H319		
TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS - H411		
<10%	Butyl Glycidyl Ether	2426-08-6
FLAMMABLE LIQUID AND VAPOR - H226		
HARMFUL IF SWALLOWED - H302		
HARMFUL IF INHALED - H332		
CAUSES SKIN IRRITATION - H315		
MAY CAUSE AN ALLERGIC SKIN REACTION - H317		
CAUSES SERIOUS EYE IRRITATION - H319		
MAY CAUSE RESPIRATORY IRRITATION - H335		
SUSPECTED OF CAUSING GENETIC DEFECTS - H341		
SUSPECTED OF CAUSING CANCER - H351		
CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE - H372		
HARMFUL TO AQUATIC LIFE WITH LONG LASTING EFFECTS - H412		
<5%	Bisphenol A Epoxy Resin (Epichlorohydrin Based)	25036-25-3
MAY CAUSE AN ALLERGIC SKIN REACTION - H317		
CAUSES SERIOUS EYE IRRITATION - H319		
<5%	Butanol	71-36-3
HARMFUL IF SWALLOWED - H302		
CAUSES SKIN IRRITATION - H315		
FLAMMABLE LIQUID AND VAPOR - H226		
MAY CAUSE RESPIRATORY IRRITATION - H335		
MAY CAUSE DROWSINESS OR DIZZINESS - H336		
CAUSES SERIOUS EYE DAMAGE - H318		
<5%	Toluene	108-88-3
CAUSES SKIN IRRITATION - H315		
HIGHLY FLAMMABLE LIQUID AND VAPOR - H225		
SUSPECTED OF DAMAGING THE UNBORN CHILD - H361d		
MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE - H373		
MAY CAUSE DROWSINESS OR DIZZINESS - H336		
MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS - H304		
<30%	Methyl Ethyl Ketone	78-93-3
HIGHLY FLAMMABLE LIQUID AND VAPOR - H225		
CAUSES SERIOUS EYE IRRITATION - H319		
MAY CAUSE DROWSINESS OR DIZZINESS - H336		

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Section -4. FIRST-AID MEASURES

General: When in doubt or symptoms persist, seek medical attention. Have Safety Data Sheet information available. Never give anything by mouth to an unconscious person.

Inhalation: Remove to fresh air, if breathing has stopped, administer artificial respiration. Give nothing by mouth, seek immediate medical attention.

Eye contact: Check for and remove any contact lenses. Irrigate with clean, fresh water for at least 15 minutes, holding the eyelids apart. Seek immediate medical attention.

Skin contact: Remove contaminated clothing. Wash skin thoroughly with soap and water or use recognized skin cleaners. Do NOT use aromatic solvents, thinners or petroleum products.

Ingestion: If accidentally swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

May be fatal if swallowed or vomited and enters lungs and/or airways. Never give anything by mouth to an unconscious person.

Section -5. FIRE-FIGHTING MEASURES

Extinguishing agents

Recommended: Universal resistant foam, CO₂, water, powder.

Agents to avoid: None known

Attention

Promptly remove all persons in the event of a fire from the fire area. If safe to do so, remove all containers from fire area as well.

Fire will produce dense black smoke. Exposure to decomposition products may cause a Health Hazard. Fire fighters should wear self-contained breathing apparatus.

Water mist may be used to cool closed containers to prevent pressure build-up and possible auto-ignition and explosion when exposed to extreme heat.

Do not weld, flame cut or expose to extreme heat or ignition sources, empty containers which have contained flammable products.

Do not allow run-off from fire fighting to enter drains or water courses.

Emits toxic fumes when heated.

HAZARDOUS DECOMPOSITION PRODUCTS INCLUDE BUT MAY NOT BE LIMITED TO THE FOLLOWING:

- Carbon Dioxide
- Carbon Monoxide
- Halogenated Compounds
- Airborne Solids
- Sulfur Oxides
- Nitrogen Oxides
- Nitrogen Oxides can react with water vapors to form corrosive nitric acid
- Unidentified Organic Compounds
- Toxic Fumes
- Smoke
- Phenolic Compounds
- Toxic Fumes
- Other Hazardous Materials

In case of inhalation of decomposition products released in a fire, symptoms may be delayed. Exposed persons may need to be kept under medical surveillance for at least 48 hours.

Section -6. ACCIDENTAL RELEASE MEASURES

Eliminate sources of ignition, ventilate the area. Avoid breathing vapors by using appropriate respiratory protective equipment. Refer to protective measures listed in sections 7 & 8.

Collect spill with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in a suitable container for disposal in accordance with local regulations (see section 13). Do not allow to enter drains or watercourses.

Clean-up with a detergent/ water mix ; avoid use of aromatic solvents. If the product enters drains or watercourses, inform authority with jurisdiction in accordance with state / local regulations.

Never allow this material, any solutions, or any by-products, as well as any run-off, to come into contact with soil, waterways, wildlife habitats, drains, sewers, and / or the ocean. Avoid release into environment.

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Section -7. HANDLING AND STORAGE

7.1 Handling:

No smoking, eating and drinking during handling.

Avoid exposure during pregnancy/while nursing.

Keep containers tightly closed. Prior to movement containers which are opened should be carefully resealed.

Avoid skin and eye contact. Avoid inhalation in case of exposure to vapor and spray mist.

Handle and open containers with care to avoid spilling of contents. Never use pressure to empty; container is not a pressure vessel. Clean or discard contaminated clothing and shoes.

Preparation may charge electrostatically; always use grounding/ bonding/ earthing leads when transferring contents of containers. Operators should wear antistatic footwear and clothing, and floors should be electrically conductive.

Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapor in air, and avoid vapor concentration higher than the Occupational Exposure Limits.

Use in areas from which local sources of ignition have been excluded. Electrical equipment including lighting should be protected to the appropriate standard. Isolate from sources of heat, sparks and open flame. Non-sparking tools are recommended.

7.2 Storage:

Observe label precautions. Store between 32/F and 95/F (0/C and 35/C) in a dry, clean and well ventilated place, away from sources of heat, ignition, and direct sunlight. For flash points below 23 °C store in an area constructed to the appropriate standard

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Engineering measures:

Avoid the inhalation of vapors, spray mist and particulates. Achieve by local exhaust ventilation providing good general extraction as to keep air-borne concentration below the Occupational Exposure Limits (OEL).

If local / area ventilation is not sufficient to comply with OEL, suitable (NIOSH) respiratory protection to be provided. Always provide suitable (NIOSH) respiratory protection when sanding, grinding or otherwise abrading cured material.

8.2 Exposure limits

Work place exposure limits (8 hour)

OSHA	PRODUCT	ACGIH
50 ppm 8 Hours	Butyl Glycidyl Ether	3 ppm 8 hours
200 ppm	Methyl Ethyl Ketone	200 ppm
200 ppm	Toluene	20 ppm
100 ppm	Butanol	20 ppm

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OSHA	PRODUCT	ACGIH
15mg/m ³ (TWA)	Aluminum Oxide	TWA: 1mg/m ³ (Respirable Fraction)
15mg/m ³ (TWA)	Titanium Dioxide	10 mg/m ³ (TWA)
15mg/m ³ (TWA) TOTAL DUST 5 mg/m ³ RESPIRABLE	Silica	10 mg/m ³ TWA INHALABLE 3 mg/m ³ (RESPIRABLE) TWA
0.8mg/m ³ TWA	Amorphous Silica	N/A

8.3 Personal protection

All Personal Protective Equipment, including Respiratory Protection, used to control exposure to hazardous substances must be selected to meet the requirements of OSHA Regulations.

Respiratory protection :

Appropriate respiratory protection equipment should be selected according to the type of contaminants, following regulatory (OSHA / NIOSH) and manufacturers instructions including proper fitting of devices.

Hand protection :

For prolonged or repeated contact, recommend gloves type: polyvinyl alcohol, nitrile rubber, latex rubber (some people may exhibit sensitivity to Latex). Barrier creams may help to protect exposed areas of the skin. However, they should not be applied post exposure.

Eye protection :

Use safety glasses with side shields to protect against splashes. Face shields may also be worn.

Skin protection :

Protective clothing made of antistatic and fire resistant fibers. All parts of the body should be washed after contact. Use good hygiene and industrial practices, keep working clothes clean.

9. PHYSICAL AND CHEMICAL PROPERTIES

- | | |
|---|--|
| <ul style="list-style-type: none"> • Physical state at: 68 ° F (20 ° C) Liquid • Flash point: 25 Deg. F Method: TCC • Specific gravity at: 68 ° F (20 ° C) N/A • Vapor Density: N/A • Lower Explosive Limit-Unknown • Upper Explosive Limit-Unknown • Miscibility in water at 20 ° C: Insoluble • VOC : N/A | <ul style="list-style-type: none"> • Ph : N/A • Volatile % by volume: N/A • Vapor pressure at: 68 ° F (20 ° C) N/A • Color: White /Off White • Appearance: Viscous Fluid • Odor: Sweet Aromatic Odor • Boiling Point: N/A • Material Supports Combustion : Yes |
|---|--|

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10. STABILITY AND REACTIVITY

Stable under recommended storage and handling conditions (see SDS section 7). In case of combustion, may produce hazardous decomposition products such as :

HAZARDOUS DECOMPOSITION PRODUCTS INCLUDE BUT MAY NOT BE LIMITED TO THE FOLLOWING:

- Carbon Dioxide
- Carbon Monoxide
- Halogenated Compounds
- Airborne Solids
- Sulfur Oxides
- Nitrogen Oxides
- Nitrogen Oxides can react with water vapors to form corrosive nitric acid
- Unidentified Organic Compounds
- Toxic Fumes
- Smoke
- Phenolic Compounds
- Other Hazardous Materials

In case of inhalation of decomposition products released in a fire, symptoms may be delayed. Exposed persons may need to be kept under medical surveillance for at least 48 hours.

11. TOXICOLOGICAL INFORMATION

There are no data available on the preparation itself. See (SDS Sections 3 and 15) for details.

Exposure to component solvents vapors at concentrations in excess of the stated Occupational Exposure Limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms and signs of overexposure include headache, dizziness, fatigue, muscular weakness, drowsiness, reduced fetal weight, increase in fetal deaths, skeletal malformations, and in extreme cases loss of consciousness. Repeated or prolonged contact with the preparation may cause Defatting of the skin resulting in non-allergic dermatitis and absorption through the skin.

The liquid splashed in the eyes causes serious eye irritation and damage.

Irritating to mouth, throat and stomach. Ingestion causes reduced fetal weight, increased fetal deaths and skeletal malformations

ACUTE TOXICITY:

ENDPOINT	SPECIES	PRODUCT	DOSE	EXPOSURE
		Bisphenol A Epoxy Resin		
LC50 Inhalation Vapor	Rat		.00001 ppm	-
LD50 Dermal	Rat		>2,000 mg/kg	-
LD50 ORAL	Rat		>2,000 mg/kg	-
		Methyl Ethyl Ketone		
LD50 ORAL	Rat		>2,000 mg/kg <=5000MG/KG	-
LC50 Inhalation Vapor	-		5000 ppm	
LD50 Dermal	Rabbit		>5000 ppm	
		Toluene		
LD50 ORAL	Rat		2600mg/kg	-
LD50 Dermal	Rabbit		12000 mg/kg	-
LC50 Inhalation Vapor	Rat		12.5 mg/l	4 hour

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ENDPOINT	SPECIES	PRODUCT	DOSE	EXPOSURE
		Butanol		
LD50 ORAL	Rat		700 mg/kg	-
LD50 ORAL	Rat		790 mg/kg	-
LD50 Dermal	Rabbit		3400 mg/kg	-
LD50 Dermal	Rabbit		3402 mg/kg	-

CORROSION / IRRITATION

PRODUCT	SPECIES	RESULT
Bisphenol A Epoxy Resin	Rabbit	SKIN-IRRITANT
	Rabbit	EYES -IRRITANT
Butyl Glycidyl Ether	Rabbit	SKIN-IRRITANT
	Rabbit	EYES-SEVERE IRRITANT
Methyl Ethyl Ketone	-	EYES-SERIOUS IRRITANT

Sensitizer:

ROUT OF EXPOSURE	PRODUCT: SPECIES	RESULT
Skin	Bisphenol A Epoxy Resin Mouse	sensitizing

CARCINOGENICITY:

Bisphenol A Epoxy Resin - Suspected of Causing Cancer
 Butyl Glycidyl Ether - Suspected of Causing Cancer

MUTAGENICITY:

Bisphenol A Epoxy Resin - Suspected of Causing Genetic Effects
 Butyl Glycidyl Ether - Suspected of Causing Genetic Defects

SPECIFIC TARGET ORGAN TOXICITY-STOT (SINGLE EXPOSURE)

Methyl Ethyl Ketone May Cause Drowsiness or Dizziness
 Butyl Glycidyl Ether Respiratory Tract Irritation

TARGET ORGANS: BRAIN, BLOOD, KIDNEYS, LUNGS, REPRODUCTIVE SYSTEM, LIVER, HEART, PERIPHERAL NERVOUS SYSTEM, GASTROINTESTINAL TRACT, UPPER RESPIRATORY TRACT, SKIN, CENTRAL NERVOUS SYSTEM, NERVOUS SYSTEM, EYE, LENS AND/OR CORNEA

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MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS - H304
 HARMFUL IF SWALLOWED - H302
 HARMFUL IF INHALED - H332
 SUSPECTED OF CAUSING CANCER - H351
 CAUSES SKIN IRRITATION - H315
 CAUSES SERIOUS EYE IRRITATION - H319
 MAY CAUSE AN ALLERGIC SKIN REACTION - H317
 SUSPECTED OF CAUSING GENETIC DEFECTS - H341
 SUSPECTED OF DAMAGING FERTILITY. SUSPECTED OF DAMAGING THE UNBORN CHILD - H361fd
 MAY CAUSE DROWSINESS OR DIZZINESS - H336
 MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE - H373
 MAY CAUSE HARM TO BREAST-FED CHILDREN - H362

ASPIRATION HAZARD :

MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS

12. ECOLOGICAL INFORMATION

There is no data available on the preparation itself. Do not allow the product to enter drains or water ways. See (SDS Sections 3 and 15)

Never allow this material, any solutions, or any by-products, as well as any run-off, to come into contact with soil, waterways, wildlife habitats, drains, sewers, and / or the ocean. Avoid release into environment.

Toxicity :

Product / Ingredient	Result	Dosage	Species	Exposure
Toluene	LC50	6.26-8.4 mg/l	Rainbow Trout	24 hours
	LC50	6.97-8.62 mg/l	Salmon	24 hours
	LC50	7.45-8.75 mg/l	Salmon	24 hours
	LC50	80 mg/l	Medaka	24 hours
Butanol	EC50	500 mg/L	Desmodesmus Subspicatus	96 Hours
	EC50	500 mg/L	Desmodesmus Subspicatus	72 Hours
	EC50	1983 mg/L	Daphnia Magna	48 Hours
	EC50 Static	1897-2072 mg/L	Daphnia Magna	48 Hours
Bisphenol A Epoxy Resin	EC50 Static	9.4 mg/L	Algae	72 Hours
	EC50 Static	1.7 mg/l	Daphnia Magna	48 Hours

Bioaccumulative Potential :

Product / Ingredient	LogP(ow)	BCF	Potential
Butanone	.29	-	low
Bisphenol A Epoxy Resin	3.242	31	low
Toluene	Partition Coefficient - 2.65		
Butanol	Partition Coefficient - 0.785		

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PERSISTENCE AND DEGRADABILITY:

PERSISTENCE AND DEGRADABILITY:

TEST	PRODUCT PERIOD	RESULT
OECD 301F	Bisphenol A Epoxy Resin 28 DAYS	5%

AQUATIC HALF LIFE	PRODUCT PHOTOLYSIS	BIODEGRADABILITY
Fresh Water 4.83 days	Bisphenol A Epoxy Resin -	Not Readily
Fresh water 3.58 days	-	Not Readily
Fresh water 7.1 days	-	Not Readily
Bisphenol A Epoxy Resin - Not Readily Biodegradable		

Mobility in Soil : Not Available

13. DISPOSAL CONSIDERATIONS

Recommended incineration or land fill as hazardous waste per Federal, State and local regulations.
 React with curing agent and dispose of as hazardous waste per Federal, State and local regulations. Recommended incineration or land fill.
 Empty containers and/or liners may contain material residue. Empty contaminated packagings thoroughly. Dispose in accordance with all Federal, State, and local health and environmental regulations.
 Never allow this material, any solutions, or any by-products, as well as any run-off, to come into contact with soil, waterways, wildlife habitats, drains, sewers, and / or the ocean. Avoid release into environment.

14. TRANSPORT INFORMATION

DOT: § 172.101 HAZARDOUS MATERIALS TABLE
UN Number: 1263
Proper Shipping Name: Paint Related Material
Labels: Flammable Liquid

IATA:
 UN Number: 1263
 Proper Shipping Name: Paint Related Material
 Labels: Flammable Liquid
 Hazard Class: 3 Subclass: NO
 Packaging Group: II
 Passenger Air Packing Instruction : 355
 Passenger aircraft: 60 Liter (16 gallon)
 Cargo Air Packing Instruction : 366
 Cargo aircraft only: 220 Liter (58 gallon)

Hazard Class: 3 Subclass: NO
 Packaging Group: II
 Limited Quantity: Passenger aircraft: 10 Liter (2.64 Gallons)
 Cargo aircraft only: 220 Liter (58 gallon)
 Vessel stowage: A
 ERG: 128
 NMFC 4620 sub.5-CL.60
 Schedule B # 3506.91.0000

IMDG:
 UN Number: 1263
 Proper Shipping Name: Paint Related Material
 Label: 3
 Hazard Class: 3 Subclass: NO
 Packaging Group: II
 EMS No: F, E – S, D

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15. REGULATORY INFORMATION**US Regulations Federal**

chemical (s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 (SARA)	Chemical Name	CAS No	Weight %	Threshold limit (Reporting Value)
	2-BUTANONE	78-93-3	<30%	unknown
	TOLUENE	108-88-3	<5%	unknown
	BUTANOL	71-36-3	<5%	unknown

SARA notifications must remain attached to this SDS. Any copies and /or distribution of this SDS must include all SARA notifications.

All remaining Constituents are non-hazardous per FED-STD-313 All Constituents are listed in TSCA inventory; complete mixture is excluded Per TSCA Par. 710.4 (d) 95 (6) (7) Constituents are not listed in TSCA 12b CORR. LIST

United States: Sara 302/304 (Sara 304 RQ): Not Applicable

Information On Ingredients: None Were Found

Sara 311/312

Classification: Fire Hazard, Immediate (acute) Health Hazard, Delayed (chronic) Health Hazard

US Regulations State

Methyl Ethyl Ketone	78-93-3	Pennsylvania (RTK) - Listed
		New Jersey (RTK) - Listed
Butyl Glycidyl Ether	###	Pennsylvania (RTK) - Listed
		California Proposition 65 (RTK) - Listed (Developmental Female)
Toluene	108-88-3	California Proposition 65 (RTK) - Listed (Developmental Female)
		New Jersey (RTK) - Listed
		Massachusetts (RTK) - Listed
		Pennsylvania (RTK) - Listed
Butanol	71-36-3	New Jersey (RTK) - Listed
		Massachusetts (RTK) - Listed
		Pennsylvania (RTK) - Listed

California Prop. 65 : Warning

This product contains a chemical or chemicals known by the state of California to cause cancer, birth defects, or other reproductive harm.

This sds is provided without any warranty expressed or implied regarding its correctness or suitability for specific situations. The conditions of handling, storage, use and disposal are beyond our control and may be beyond our knowledge.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

Listed National Pollutant Release Inventory (NPRI):

2-BUTANONE CAS#78-93-3
TOLUENE

BUTYL GLYCIDYL ETHER
BUTANOL

Bisphenol A Epoxy Resin

16. OTHER INFORMATION

HEALTH	2
FLAMMABILITY	3
REACTIVITY	0

NFPA

HEALTH	2
FLAMMABILITY	3
REACTIVITY	0

HMIS

Customer and / or end user is responsible for determining PPE

LIST OF ABBREVIATIONS :

OSHA - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

ACGIH - AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS

PNOC - PARTICULATES NOT OTHERWISE CLASSIFIED (ACGIH)

TWA - TIME WEIGHTED AVERAGE

IARC - INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

NTP - NATIONAL TOXICOLOGY PROGRAM

SARA - SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT

NFPA - NATIONAL FIRE PROTECTION ASSOCIATION

HMIS - HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

Preparer:

Flamemaster / Compliance

Revision Date: 08/15/2022

Containers:

plastic jars, metal cans
cartridge kits

Limited Quantity

See SDS Section 14

Maximum container size 50 Gallons / 190 Liters

Notice to reader:

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In all cases, the user must determine the applicability of all information and recommendations contained herein as well as the suitability of this product for their own particular needs or purposes.

This product may be hazardous and should always be used with care and discretion. Every effort has been made to describe all known hazards, but this in no way guarantees the above mentioned hazards are the only hazards present.

Flamemaster Corporation, its Affiliates and its Agents, shall in no way be held liable for any damages resulting from handling, using, storing, disposing of, or from contact with this product. User assumes all risk.

End of Safety Data Sheet

This sds is provided without any warranty expressed or implied regarding its correctness or suitability for specific situations. The conditions of handling, storage, use and disposal are beyond our control and may be beyond our knowledge.