

**Section -1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

1.1. Product Identifier: F-100E High Temperature Ablative Compound (Part A)-All Colors  
 - Product Name: F-100E High Temperature Ablative Compound / Part A / All Colors  
 - Product reference: F-100E Ablative Compound (Part A) Base / All Colors

**1.2. Product Use:**  
 - High Temperature Ablative 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](http://www.flamemaster.com)

**1.4. Emergency Telephone:**  
 Chemtrec – Chemtrec International  
 800-424-9300 ( North America)  
 703-527-3887 (Outside North America))

**Specification: MIL-C-47244 / MIS 31865 HIGH TEMPERATURE ABLATIVE PART A ALL COLORS**

**NSN:**

**NONE ISSUED FOR THIS PRODUCT**

**Section -2. HAZARD ( S ) IDENTIFICATION**

Serious Eye Damage / Eye Irritation (Category 2), H319  
 Respiratory Sensitisation, (Category 1), H334  
 Skin Sensitisation, (Category 1), H317  
 Germ Cell Mutagenicity, (Category 2), H341  
 Carcinogenicity, (Category 1A), H350  
 Specific Target Organ Toxicity-Single Exposure-(Category 3), Respiratory Tract Irritation H335  
 Chronic Aquatic Toxicity, (Category 4), H413  
 Skin Irritation, (Category 2), H315  
 Reproductive Toxicity, (Category 2), H361  
 Specific Target Organ Toxicity-Single exposure-(Category 3), Narcotic Effect H336  
 Specific Target Organ Toxicity-Repeated Exposure-(Category 2), H372  
 Aspiration Hazard, (Category 1), H304  
 Acute Toxicity (Oral) (Category 4), H302

**Hazards not otherwise classified (HNOC) or not covered by GHS:**

If sanding, grinding or abrading material, combustible dust may form in air. Airborne dust damages the lungs by inhalation.  
 Avoid physical exposure by allowing adequate ventilation and using proper personal protection equipment.

## GHS Label Elements, Including Precautionary Statements

Pictograms:



Signal Word: DANGER

### HAZARD STATEMENTS:

- H302 Harmful if swallowed
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation
- H317 May cause an allergic skin reaction
- H319 Causes serious eye irritation
- H332 Harmful if inhaled
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 May cause respiratory irritation
- H336 May cause drowsiness or dizziness
- H341 Suspected of causing genetic defects.
- H350 May Cause Cancer
- H361 Suspected of damaging fertility or the unborn child
- H372 Causes damage to organs through prolonged or repeated exposure.
- H413 May cause long lasting harmful effects to aquatic life

### In the event of sanding, grinding, or abrading:

- H372 Causes damage to organs through prolonged or repeated exposure.

### Full text of P statements associated to this compound:

- P101+P102+P103: If medical advice is needed, have product container or label at hand. Keep out of reach of children.
- Read label before use
- P202: Do not handle until all safety precautions have been read and understood
- P210: Keep away from heat/sparks/open flames and hot surfaces-No Smoking
- P240:Ground/bond container and receiving equipment
- P261+P262+P263+P264:Avoid breathing dust/fumes/gas/mist/vapours/spray. Do not get in eyes , on skin, or on clothing. Avoid contact during pregnancy/while nursing. Wash thoroughly after handling.
- P270+P271+P273: Do not eat drink or smoke when using this product. Use only outdoors or in a well ventilated area. Avoid release to the environment.
- P281+P280: Use personal protective equipment as required. Wear protective gloves/ protective clothing/ eye protection/face protection
- P301+P310+P331: If swallowed: Immediately call a POISON CENTER or doctor/physician. Do not induce vomiting.
- P305+P351+P338+P315: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice /attention.
- P304+P340+P314: If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell
- P342+P340+P315: If experiencing respiratory symptoms: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical advice/attention.
- P302+P352: If on skin: Wash with plenty of soap and water
- P306+P361: If on clothing: Remove/ take off immediately all contaminated clothing
- P402+P403+P404: Store in a dry place. Store in a well ventilated space. Store in a closed container.
- P233+P234+P235: Keep container tightly closed. Keep only in original container. Keep cool.

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**Section -3. COMPOSITION / INFORMATION ON INGREDIENTS**

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**Chemical family** : Mixture of organic compounds  
For the hazards of the composition, (SDS see Section 2).

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**BISPHENOL A AND EPOXY RESIN (PRODUCT NAME ARALDITE 506 EPOXY RESIN):**

OSHA HAZARDS: SKIN SENSITISER, IRRITANT  
GHS CLASSIFICATION: BISPHENOL A AND EPOXY RESIN  
SKIN IRRITATION (CATEGORY 2), H315  
EYE IRRITATION (CATEGORY 2A), H319  
SKIN SENSITIZATION (CATEGORY 1), H317  
ACUTE AQUATIC TOXICITY (CATEGORY 2), H401  
CHRONIC AQUATIC TOXICITY (CATEGORY 2), H411

**GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS)-BUTYL GLYCIDYL ETHER**

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

**GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS): TOLUENE**

FLAMMABLE LIQUIDS (CATEGORY 2), H225  
SKIN IRRITATION (CATEGORY 2), H315  
REPRODUCTIVE TOXICITY (CATEGORY 2), H361  
SPECIFIC TARGET ORGAN TOXICITY-SINGLE EXPOSURE-(CATEGORY 3), CENTRAL NERVOUS SYSTEM, H336  
SPECIFIC TARGET ORGAN TOXICITY-REPEATED EXPOSURE (CATEGORY 2), H373  
ASPIRATION HAZARD (CATEGORY 1), H304  
ACUTE AQUATIC TOXICITY (CATEGORY 2), H401

**GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS): Silicone Dioxide**

CARCINOGENICITY (CATEGORY 1A), H350  
SPECIFIC TARGET ORGAN TOXICITY-REPEATED EXPOSURE-(STOT RE)- INHALATION (CATEGORY 1), LUNGS, H372

**GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS): Talc**

CARCINOGENICITY (CATEGORY 1A), H350

**GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS): Glass Spheres**

CARCINOGENICITY (CATEGORY 1B), H350

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**GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS): Charcoal Activated**

Combustible Dust-May form combustible dust concentrations in air.

SUBSTANCE % by weight in the product		H&P Statements	CAS	EINECS/ELINCS
Bisphenol A and Epoxy Resin	<30%	H303,H315,H317,H319,H411 P280P305+P351+P338,P273	25068-38-6	500-033-5
Butyl Glycidyl Ether	<5%	H226,H302,H314,H317,H331, H334,H335,H341,H350,H412, H301+H311+H331,H302+H332,H315, H318,H351,H402 P201,P202,P210,P233,P240,P241, P242,P243,P261,P262,P264,P270, P271,P272,P273,P280 P301+P330+P331,P303+P361+P353, P304+P340,P305+P351+P338,P310, P322,P333+P313,P361,P363 P370+P378,P403+P233, P403+P235,P405,P501	2426-08-6	219-376-4
TOLUENE (Methylbenzene)	< 12%	H225,H304,H315,H319,H332,H336, H361,H371,H401, P210P260,P281,P301+P310,P305+ P351+ P338,P331	108-88-3	203-625-9
SILICONE DIOXIDE	<50%	H350, H372, P201,P202,P260,P264, P270,P280,P308+P313,P405,P501	14808-60-7	238-878-4
TALC	<10%	H350, P201, P202, P281, P308+P313 P405, P501	14807-96-6	238-877-9
GLASS SPHERES	<5%	H350, P201, P202, P281, P308+P313 P405, P501	65997-17-3	266-046-0
CHARCOAL ACTIVATED	<5%	MAY FORM COMBUSTIBLE DUST IN AIR	7440-44-0	231-153-3

**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 and 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.

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**Section -5. FIRE-FIGHTING MEASURES**

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**Extinguishing agents**

**Recommended:** Universal resistant foam, CO<sub>2</sub>, water, powder.

**Agents to avoid:** None known

**Attention**

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.

**Hazardous Decomposition Products:** Carbon Dioxide, Carbon Monoxide, Traces of Benzene (if heated in air above 300° F), Formaldehyde (if heated in air above 300° F), Metal Oxides, Silicone Dioxide, Silicone Oxides, Magnesium Oxide, Carbon Oxides,

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**Section -6. ACCIDENTAL RELEASE MEASURES**

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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.

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.

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.

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**Section -7. HANDLING AND STORAGE**

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**7.1 Handling:**

No smoking, eating and drinking during handling.

Avoid contact/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.

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**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

**SPECIAL COMMENTS:** This Product, when heated in air above 300° F, can release traces of Benzene and/or Formaldehyde.

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**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

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**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.

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**8.2 Exposure limits**

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**Work place exposure limits ( 8 hour )**

Substance	OSHA PEL	ACGIH TLV
Butyl Glycidyl Ether *	50PPM	3PPM
TOLUENE (Methylbenzene)*	200 ppm	20 ppm
SILICONE DIOXIDE *	10.000000 mg/m <sup>3</sup>	0.025mg/m <sup>3</sup>
Hydrous Magnesium Silicate *	20 million particles per cubic foot	2.000000 mg/m <sup>3</sup>
* can be absorbed through skin		

**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.

**Environmental Exposure Controls:** Emissions from workplace ventilation systems or work process equipment should be periodically checked to ensure compliance with local environmental laws.

**SPECIAL COMMENTS:** This Product, when heated in air above 300° F, can release traces of Benzene and/or Formaldehyde.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state at: 68 ° F (20 ° C) Liquid
- Flash point: +93 ° C --- +200 Deg. F Method: TCC
- Specific gravity at: 68 ° F (20 ° C) N/A
- Vapor Density: >N/A
- Lower Explosive Limit-None
- Upper Explosive Limit-None
- Miscibility in water at 20 ° C: Slight
- Ph : N/A
- Volatile % by volume: N/A
- Vapor pressure at: 68 ° F (20 ° C) N/A
- Color: All Colors
- Appearance: Paste
- Odor: Ester Odor
- Boiling Point: N/A

## 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 :

- Carbon Monoxide
- Traces of Benzene
- Metal Oxides
- Carbon Dioxide
- Silicone Oxides
- Smoke
- Soot
- Silicone Dioxide
- Formaldehyde
- Benzene by products
- Magnesium Oxide
- Carbon Oxides

## 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 include headache, dizziness, fatigue, muscular weakness, drowsiness, 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 may cause severe irritation and severe damage to the eyes.

### ACUTE TOXICITY:

PRODUCT:	RESULT	SPECIES	DOSE	EXPOSURE
Bisphenol A- Epoxy Resin	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 ORAL	Rat	>2000 mg/kg	-
	LC0 Inhalation	Rat	0.00001 ppm	5 Hours
Toluene	LC50 Inhalation Vapor	Rat	49 g/m <sup>3</sup>	4 Hours
	LC50 Inhalation Vapor	Rat	8000 ppm	4 Hours
	LD50 Dermal	Rabbit	8.39 g/kg	-
	LD50 ORAL	Rat	636 mg/kg	-

### CHRONIC TOXICITY:

PRODUCT:	RESULT	SPECIES	DOSE	EXPOSURE
Bisphenol A- Epoxy Resin	Sub-Chronic NOAEL Oral	Rat-Male Female	50 mg/kg	14 weeks (7 days per week)
	Sub-Chronic NOEL Dermal	Rat-Male Female	10mg/kg	13 weeks (5 days per week)
	Sub-Chronic NOAEL Dermal	Mouse Male	100mg/kg	13 weeks (3 days per week)

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**IRRITATION/CORROSION:**

PRODUCT:	RESULT	SPECIES
Bisphenol A- Epoxy Resin	Skin- Mild Irritant	Rabbit
	Eyes- Mild Irritant	Rabbit
Butyl Glycidyl Ether	Skin- Moderate Irritant	Rabbit
	Eyes- Severe Irritant	Rabbit
<b>Skin:</b>		
Bisphenol A- Epoxy Resin	Slightly Irritating to the skin	
Butyl Glycidyl Ether	Irritating to the skin	
Talc	Mild skin irritation	

**Eyes:**

Bisphenol A- Epoxy Resin	Slightly Irritating to the eyes
Butyl Glycidyl Ether	Severely Irritating to the eyes

**Sensitizer:**

PRODUCT:	ROUTE OF EXPOSURE	SPECIES	RESULT
Bisphenol A- Epoxy Resin	Skin	Mouse	Sensitizing

**CARCINOGENICITY:**

INGREDIENT	IARC	OSHA	NTP	CAS#
Butyl Glycidyl Ether	2A	-	Reasonably anticipated to be a human carcinogen	2426-08-6
TOLUENE :	3	-	-	108-88-3
Silicone Dioxide:	1	-	Known to be a human carcinogen	14808-60-7
Talc:	1	-	Known to be a human carcinogen	14807-96-6

**MUTAGENICITY:**

PRODUCT:	TEST	RESULT
Bisphenol A- Epoxy Resin	OECD 471 Bacterial Reverse Mutation Test	Positive
	OECD 476 In Vitro Mammalian Cell Gene Mutation Test	Positive
	OECD 478 Genetic Toxicology: Rodent Dominant Lethal Test	Negative
	EPA OPPTS	Negative

**TERATOGENICITY**

PRODUCT:	RESULT	SPECIES	DOSE	EXPOSURE
Bisphenol A- Epoxy Resin	Negative- Oral	Rat- Female	>540mg/kg NOEL	10 days
	Negative- Dermal	Rabbit-Female	>300 mg/kg NOEL	13 days; 6 hours per day
	Negative- Oral	Rabbit- Female	>180mg/kg NOAEL	13 DAYS

Butyl Glycidyl Ether: A study in animals has shown that repeated exposures produce embryo/foetotoxic effects in the presence of maternal toxicity



## REPRODUCTIVE TOXICITY

### PRODUCT:

Bisphenol A- Epoxy Resin:

Maternal Toxicity: Negative

Fertility: Negative

Development Toxin: Negative

Species: Rat

Dose: Oral: 540mg/kg NOEL

Exposure: 238 days; 7 days per week

Toluene:

Damage to fetus possible, Suspected human reproductive toxicant

### SPECIFIC TARGET ORGAN TOXICITY-SINGLE EXPOSURE:

Butyl Glycidyl Ether-May Cause Respiratory irritation

### SPECIFIC TARGET ORGAN TOXICITY-REPEATED EXPOSURE:

Silicone Dioxide- Inhalation-Causes damage to organs through prolonged or repeated exposure-Lungs

### HAZARD STATEMENTS:

H302 Harmful if swallowed

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H319 Causes serious eye irritation

H332 Harmful if inhaled

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation

H336 May cause drowsiness or dizziness

H341 Suspected of causing genetic defects.

H350 May Cause Cancer

H361 Suspected of damaging fertility or the unborn child

H372 Causes damage to organs through prolonged or repeated exposure.

H413 May cause long lasting harmful effects to aquatic life

### Chronic Effects:

Once sensitized, a severe allergic reaction may occur when exposed to very low levels.

This product contains material which may impair male fertility, based on animal data.

Pre-existing skin disorders may be aggravated by exposure to this product.

May cause cancer

May cause allergic skin reactions.

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

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## 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)

**Environmental Effects:** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.

Aquatic Eco toxicity:

Product:	Test	Result	Species	Exposure
Bisphenol A- Epoxy Resin (Acute Immobilization Test)	OECD 202	Acute EC50 9.4mg/l Fresh water	Algae	72 Hours Static
		Acute EC50 1.7 mg/l Fresh Water	Daphnia	48 Hours Static
	OECD 203 (Acute Toxicity Test)	Acute IC50 >100 mg/l Fresh Water Acute LC50 1.5 mg/l Fresh Water	Bacteria Fish	3 hours Static 96 Hours Static
Toluene	OECD 211 (Reproduction Test)	Chronic NOEC.3 mg/l Fresh Water	Daphnia	21 days Semi Static
	NOEC	LC50 -7.63mg/l	Rainbow Trout	96 Hours
		5.44 mg/l	Fathead Minnow	7 days
Immobilization Toxicity to Algae		EC50-8.00mg/l	Daphnia Magna	24 Hours
		EC50-6.00mg/l	Daphnia Magna	48 hours
		EC50-10mg/l	Green Algae	24 Hours
		EC50-245mg/l	Fresh Water Algae	24 Hours

Biodegradability:

Product:	Test	Result	Dose	Inoculum
Bisphenol A- Epoxy Resin	OECD Derived (OECD 301F) (Biodegradation Test)	5%-Not Readily 28 Days	20 mg/l Oxygen Consumption	-

Product:	Aquatic Half Life	Photolysis	Biodegradability
Bisphenol A- Epoxy Resin	Fresh Water 4.83 Days Fresh Water 3.58 Days Fresh Water 7.1 Days	-	Not Readily

Bioaccumulative Potential

Product:	LogPow	BCF	Potential
Bisphenol A- Epoxy Resin	3.242	31	Low
Toluene	2.73	8.32	low

Persistence and Degradability :

Product / Ingredient	Aquatic Half Life	Photolysis	Biodegradability
Toluene	-	-	Readily

### Other Adverse Effects

Bisphenol A- Epoxy Resin: Toxic to aquatic life with long lasting effects

Butyl Glycidyl Ether: Harmful to aquatic life

Toluene: Toxic to aquatic life

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**13. DISPOSAL CONSIDERATIONS**

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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. Avoid contact with soil, waterways, drains and sewers. Avoid dispersal of spilled material and runoff. 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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**14. TRANSPORT INFORMATION**

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**DOT:** Not regulated

**UN Number:** Not regulated

**IATA:** Not regulated

**IMDG/IMO:** Not regulated

**NMFC:** 4620 SUB.5 – CL.60

**Schedule B #** 3506.91.0000

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**15. REGULATORY INFORMATION**

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**US Regulations Federal****HCS Classification:**

Butyl Glycidyl Ether: Combustible Liquid, Irritating Material, Sensitizing Material

**SARA 311/312:**

Bisphenol A- Epoxy Resin: Acute Health hazard

Butyl Glycidyl Ether : Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard

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

Silicic Anhydride: Chronic Health Hazard

Silicone Dioxide: Chronic Health Hazard

Glass Spheres: Chronic Health Hazard

Talc: Chronic Health Hazard

**CERCLA HAZARDOUS SUBSTANCES**

Components	Concentration %	Section 304 CERCLA Hazardous Substance
1-chloro-2,3-epoxypropane	<35%	Listed
Toluene	<12%	Listed

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
	Bisphenol A and Epoxy Resin	25068-38-6	<30%	>= 1.0%
	Butyl Glycidyl Ether	2426-08-6	<5%	>= 1.0%
	TOLUENE (Methylbenzene)	108-88-3	<12%	>= 1.0%

\* Do not detach SARA 313 notifications from SDS. All copies of SDS must include SARA 313 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

**US Regulations State**

California Proposition 65 (Developmental – Female)	<b>Bisphenol A and Epoxy Resin</b>	25068-38-6	<30%	>= 1.0%
Massachusetts	<b>Bisphenol A and Epoxy Resin</b>	25068-38-6	<30%	>= 1.0%
New Jersey	<b>Bisphenol A and Epoxy Resin</b>	25068-38-6	<30%	>= 1.0%
Pennsylvania	<b>Bisphenol A and Epoxy Resin</b>	25068-38-6	<30%	>= 1.0%
Rhode Island	<b>Bisphenol A and Epoxy Resin</b>	25068-38-6	<30%	>= 1.0%
California Proposition 65 (Developmental – Female)	Butyl Glycidyl Ether	2426-08-6	<5%	>= 1.0%
Massachusetts	Butyl Glycidyl Ether	2426-08-6	<5%	>= 1.0%
New Jersey	Butyl Glycidyl Ether	2426-08-6	<5%	>= 1.0%
Pennsylvania	Butyl Glycidyl Ether	2426-08-6	<5%	>= 1.0%
Rhode Island	Butyl Glycidyl Ether	2426-08-6	<5%	>= 1.0%
California Proposition 65 (Developmental – Female)	<b>TOLUENE</b>	108-88-3	<12%	>= 1.0%
Massachusetts	<b>TOLUENE</b>	108-88-3	<12%	>= 1.0%
New Jersey	<b>TOLUENE</b>	108-88-3	<12%	>= 1.0%
Pennsylvania	<b>TOLUENE</b>	108-88-3	<12%	>= 1.0%
Rhode Island	<b>TOLUENE</b>	108-88-3	<12%	>= 1.0%
New Jersey	<b>Silicic Anhydride</b>	112945-52-5	<3%	>= 1.0%
Pennsylvania	<b>Silicic Anhydride</b>	112945-52-5	<3%	>= 1.0%
California Proposition 65 (Developmental – Female)	<b>Quartz</b>	14808-60-7	<50%	>= 1.0%
Massachusetts	<b>Quartz</b>	14808-60-7	<50%	>= 1.0%
New Jersey	<b>Quartz</b>	14808-60-7	<50%	>= 1.0%
Pennsylvania	<b>Quartz</b>	14808-60-7	<50%	>= 1.0%
Massachusetts	<b>Hydrous Magnesium Silicate</b>	14807-96-6	<10%	>= 1.0%
New Jersey	<b>Hydrous Magnesium Silicate</b>	14807-96-6	<10%	>= 1.0%
Pennsylvania	<b>Hydrous Magnesium Silicate</b>	14807-96-6	<10%	>= 1.0%
New Jersey	<b>Glass Spheres</b>	65997-17-3	<5%	>= 1.0%
Pennsylvania	<b>Glass Spheres</b>	65997-17-3	<5%	>= 1.0%
New Jersey	<b>Activated Charcoal</b>	7440-44-0	<5%	>= 1.0%
Pennsylvania	<b>Activated Charcoal</b>	7440-44-0	<5%	>= 1.0%
New Jersey	<b>Silicone Resin</b>	68037-75-2	<10%	>= 1.0%
Pennsylvania	<b>Silicone Resin</b>	68037-75-2	<10%	>= 1.0%

**California Proposition 65 warning:** This product contains materials known by the state of California to cause cancer, birth defects, and/or other reproductive harm.



**Class B – Flammable**

Butyl Glycidyl Ether  
Toluene



**Class D - Poisonous and Infectious materials Division 2: Materials Causing Other Toxic Effects D2A:**

Butyl Glycidyl Ether  
Araldite Epoxy Resin  
Toluene, D2B

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):

Butyl Glycidyl Ether 2426-08-6, Araldite Epoxy Resin 25068-38-6, Toluene 108-88-3

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**16. OTHER INFORMATION**

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HEALTH 2  
FLAMMABILITY 1  
REACTIVITY 0

Customer and/or end user is responsible for determining PPE code.

HEALTH 2  
Chronic \*FLAMMABILITY 1  
REACTIVITY 0

**NFPA**

**HMIS**

Preparer:	Flamemaster / Compliance Rev-A August / 2015 Supersedes (conversion)	Revision Notes: A	Conversion to ANSI format
Containers:	plastic jars, metal cans cartridge kits		
Limited Quantity	See SDS Section 14		
Maximum container size:	50 Gallons / 190 Liters		

**Notice to reader:**

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.

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**