



**FLAMEMASTER**

Flamemaster Corp.

13576 Desmond Street

Pacoima, CA 91331 - USA

**SAFETY DATA SHEET**

**AUGUST 14, 2019**

**File: CS3201AB GSA 07-10**

**Optical Sealant Base**

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

1.1. Product Identifier: CS-3201 Part-A Class-B Base (all application times) Black

- Product Name: Sealing Compound Part-A

- Product reference: CS-3201-B (BLACK)

**1.2. Product Use:**

- Aircraft Sealant

**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)

**Emergency Contact Information :**

See Below

**Specification: AMS 7124 / MIL-S-7502**

**Base PART A**

**CLASS B**

<b>NSN:</b>		8030-00-262-9045 CS3201 B4 PINT KIT	8030-00-031-7781 CS3201 B1/2 PINT KIT	8030-00-322-6928 CS3201 B4 GAL KIT	
		8030-00-851-8379 CS3201 B-2 2.5 OZ	8030-00-613-9083 CS3201 B-2 PINT KIT	8030-01-839-2099 CS3201 B4 QT KIT	

**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

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

### CLASSIFICATION OF THE MIXTURE:

ASPIRATION HAZARD - CATEGORY 1  
SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A  
CARCINOGENICITY - Category 2  
TOXIC TO REPRODUCTION (UNBORN CHILD) - Category 2  
TOXIC TO AQUATIC LIFE - Category 4

### GHS LABEL REQUIREMENTS

#### HAZARD PICTOGRAMS



**SIGNAL WORD : DANGER**

#### HAZARD STATEMENTS:

MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS - H304  
CAUSES SERIOUS EYE IRRITATION - (H319)  
CAUSES SKIN IRRITATION - (H315)  
SUSPECTED OF DAMAGING THE UNBORN CHILD - (H361d)  
SUSPECTED OF CAUSING CANCER - (H351)  
MAY CAUSE LONG LASTING HARMFUL EFFECTS TO AQUATIC LIFE - (H413)

#### PRECAUTIONARY STATEMENTS:

- 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 (or in hair) : Wash with plenty of soap and water. If skin irritation occurs seek medical attention
- 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.

## 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.

1-component mixtures: formaldehyde is released during the curing phase. Formaldehyde may cause irreversible effects, is 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.

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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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**GHS CLASSIFICATION: LIQUID POLYMER** // OSHA HAZARDS: TARGET ORGAN EFFECT, IRRITANT, FLAMMABLE LIQUID

EYE IRRITATION (CATEGORY 2)

SKIN IRRITATION (CATEGORY 2)

SPECIFIC TARGET ORGAN TOXICITY-SINGLE EXPOSURE-(CATEGORY 3)

AQUATIC, CHRONIC (CATEGORY 3)

**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

### **CALCIUM CARBONATE:**

GHS CLASSIFICATION: CALCIUM CARBONATE

EYE DAMAGE (CATEGORY 1)

SKIN IRRITATION (CATEGORY 2)

SPECIFIC TARGET ORGAN TOXICITY-SINGLE EXPOSURE-(CATEGORY 3)

### **Epoxy Resin with Toluene**

FLAMMABLE LIQUIDS - CATEGORY 2

SKIN CORROSION/IRRITATION - CATEGORY 2

SERIOUS EYE DAMAGE/EYE IRRITATION - CATEGORY 2A

SKIN SENSITIZATION - CATEGORY 1

TOXIC TO REPRODUCTION (UNBORN CHILD) - CATEGORY 2

SPECIFIC TARGET ORGAN TOXICITY ( SINGLE EXPOSURE) (NARCOTIC EFFECTS) - CATEGORY 3

AQUATIC HAZARD (ACUTE) - CATEGORY 2

AQUATIC HAZARD (LONG TERM) - CATEGORY 3

**CARBON BLACK:**

MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR

SUBSTANCE % by weight in the product	H&P STATEMENTS	CAS	EINECS/ELINCS
LIQUID POLYMER < 70%	H319,H335,H315,H412,H223, P210,P270,P305+P351+P338 +P313,P306+P361,P370+P260	N/A	POLYMER
TOLUENE (Methylbenzene) < 2%	H225,H304,H315,H319,H332,H336, H361,H371,H401, P210P260,P281,P301+P310,P305+ P351+ P338,P331	108-88-3	203-625-9
Calcium Carbonate <45%	H319 P305+P351+P313,P280	72608-12-9	207-439-9
Epoxy Resin with Toluene <3%	H225, H319, H315, H317, H361d, H336, H400, H412	N/A	N/A
CARBON BLACK <3%	May form combustible dust concentrations in air.	1333-86-4	N/A

**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:** Remove any contact lenses if present and easy to do. Irrigate with clean, fresh water for at least 15 minutes, holding the eye lids 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.

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

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

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.

**HAZARDOUS DECOMPOSITION PRODUCTS INCLUDE:** CARBON DIOXIDE, CARBON MONOXIDE, HALOGENATED COMPOUNDS, METAL OXIDE / OXIDES, SULPHUR OXIDES AND FORMALDEHYDE

Emits toxic fumes when heated.

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.

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#### **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. Wash hands and face before eating, drinking, or smoking.

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.

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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

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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## 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

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

Substance	OSHA	ACGIH TWA
LIQUID POLYMER	Not known	Not known
TOLUENE (Methylbenzene)*	200 ppm	20 ppm
CALCIUM CARBONATE *	5 mg/m <sup>3</sup> ( RESPIRABLE FRACTION)	3 mg/m <sup>3</sup> (RESPIRABLE FRACTION)
CALCIUM CARBONATE *	15mg/m <sup>3</sup> (TOTAL DUST)	10 mg/m <sup>3</sup> (TOTAL DUST)
CARBON BLACK *	3.5 mg/m <sup>3</sup>	3.0 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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state at: 68 ° F (20 ° C) Liquid
- Flash point: 200 ° F (93 ° C) Method: TCC
- Specific gravity at: 68 ° F (20 ° C) N/A
- Vapor Density: NIL
- Lower Explosive Limit (% vol.): N/A
- Upper Explosive Limit (% vol.): N/A
- Miscibility in water at 20 ° C: NEGLIGIBLE
- VOC: N/A
- Ph : N/A
- Volatile by VOLUME: N/A
- Vapor pressure at: 68 ° F (20 ° C) NIL
- Color: Black
- Appearance: PASTE
- Odor: Polysulfide Odor
- Boiling Point: Unknown
- Material Supports Combustion: Yes

## 10. STABILITY AND REACTIVITY

Stable under recommended storage and handling conditions (see SDS section 7).

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

- Carbon Monoxide
- Sulfur Oxides
- Carbon Dioxide
- Formaldehyde
- Halogenated Compounds
- Oxides of Carbon, Nitrogen, Sulfur Dioxide, Trace Hydrogen Sulfide
- Metal Oxide / Oxides
- Smoke

Emits toxic fumes when heated.

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

Formaldehyde is released during curing.

### ACUTE TOXICITY:

PRODUCT:	RESULT	SPECIES	DOSE	EXPOSURE
Calcium Carbonate	LD50 ORAL	Rat	6450 mg/kg	-
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	-
Epoxy Resin with Toluene	LD50 ORAL	Rat	636 mg/kg	-
	LD50 Dermal	Rat	>2000 mg/kg	-
Carbon Black	LD50 ORAL	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>8000 mg/kg	-

May cause damage to organs through prolonged or repeated exposure.  
 Suspected of causing cancer. Risk depends on level and duration of exposure.  
 Suspected of damaging the unborn child.

**CARCINOGENICITY:**

INGREDIENT	IARC	OSHA	NTP	CAS#
TOLUENE :	3	-	-	108-88-3
Carbon Black	2B			1333-86-4

**SPECIFIC TARGET ORGAN TOXICITY-STOT (SINGLE EXPOSURE)**

LIQUID POLYMER - CATEGORY 3

TOLUENE - CATEGORY 3

**SPECIFIC TARGET ORGAN TOXICITY-STOT (REPEATED EXPOSURE)**

TOLUENE - CATEGORY 2

**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.

**ASPIRATION HAZARD:**

TOLUENE - CATEGORY 1

**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.

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.

Toxicity :

Toxicity :

Product / Ingredient	Test / Exposure	Species	Result
Carbon Black	LC50 (96 Hrs.)	Brachydanio Rerio	>1000 mg/L
	EC50 (24 Hrs.)	Daphnia Magna	>5600 mg/L
Toluene	EC50 (48 Hrs.)	Daphnia	3.78 mg/l
	LC50 (96 Hrs.)	Fish	5.5 mg/l

Persistence and Degradability :

Product / Ingredient	Aquatic Half Life	Photolysis	Biodegradability
Toluene	-	-	Readily (5 days - 81 %)
Epoxy Resins with Toluene	-	-	Not Readily Biodegradeable (28 days - 5%)



Bioaccumulative Potential :

Product / Ingredient	LogP(ow)	BCF	Potential
Toluene	2.73	8.32	low
Epoxy Resins with Toluene	-	31	low

**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: Not regulated

UN Number: Not regulated

IATA: Not regulated

IMDG/IMO: Not regulated

NMFC: 4620 SUB.5 – CL.60

Schedule B # 3506.91.0000

**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)
	TOLUENE (Methylbenzene)	108-88-3	<2%	Unknown
	LIQUID POLYMER	N/A	<70%	Unknown
	Calcium Carbonate	72608-12-9	<45%	Unknown
	Carbon Black	1333-86-4	<3 %	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

**US Regulations State**

California Proposition 65 (Developmental – Female)	<b>TOLUENE</b>	108-88-3	<2%	>= 1.0%
Massachusetts	<b>TOLUENE</b>	108-88-3	<2%	>= 1.0%
New Jersey	<b>TOLUENE</b>	108-88-3	<2%	>= 1.0%
Pennsylvania	<b>TOLUENE</b>	108-88-3	<2%	>= 1.0%
Rhode Island	<b>TOLUENE</b>	108-88-3	<2%	>= 1.0%
California Proposition 65 (Developmental – Female)	LIQUID POLYMER	N/A	<70%	>= 1.0%
Massachusetts	LIQUID POLYMER	N/A	<70%	>= 1.0%
New Jersey	LIQUID POLYMER	N/A	<70%	>= 1.0%
Pennsylvania	LIQUID POLYMER	N/A	<70%	>= 1.0%
Rhode Island	LIQUID POLYMER	N/A	<70%	>= 1.0%
California Proposition 65 (Developmental – Female)	Calcium Carbonate	72608-12-9	<45%	>= 1.0%
Massachusetts	Calcium Carbonate	72608-12-9	<45%	>= 1.0%
New Jersey	Calcium Carbonate	72608-12-9	<45%	>= 1.0%
Pennsylvania	Calcium Carbonate	72608-12-9	<45%	>= 1.0%
Rhode Island	Calcium Carbonate	72608-12-9	<45%	>= 1.0%
California Proposition 65 (Developmental – Female)	Carbon Black	1333-86-4	<3%	>= 1.0%
Massachusetts	Carbon Black	1333-86-4	<3%	>= 1.0%
New Jersey	Carbon Black	1333-86-4	<3%	>= 1.0%
Pennsylvania	Carbon Black	1333-86-4	<3%	>= 1.0%
Rhode Island	Carbon Black	1333-86-4	<3%	>= 1.0%

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

Information On Ingredients: None Were Found

Sara 311/312

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

**Information On Ingredients:**

**Liquid Polymer:** Immediate (acute) Health Hazard

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

**Epoxy Resin with Toluene :** Fire Hazard, Immediate (acute) Health Hazard, Delayed (chronic) Health Hazard

**Carbon Black :** Chronic Health Hazard, Fire Hazard

**Sudden Release Of Pressure:** No Products

**Reactivity:** No Products

**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 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):TOLUENE CAS:108-88-3  
Calcium Carbonate CAS#72608-12-9                      Liquid Polymer cas# N/A  
carbon Black Cas# 1333-86-4

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**16. OTHER INFORMATION**

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HEALTH	2
FLAMMABILITY	0
REACTIVITY	0

HEALTH	2
FLAMMABILITY	0
REACTIVITY	0

\* Customer and / or end user is responsible for determining Personal Protection Equipment

**NFPA**

**HMIS**

Preparer:	Flamemaster / Compliance	Revision Date: 08/14/2019	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**



**FLAMEMASTER**

Flamemaster Corp.

13576 Desmond Street

Pacoima, CA 91331 - USA

**SAFETY DATA SHEET**

**AUGUST 14, 2019**

**File: CS3201AB GSA 07-10**

**Optical Sealant Base**

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

1.1. Product Identifier: CS-3201 Part-A Class-B Base (all application times) Black

- Product Name: Sealing Compound Part-A

- Product reference: CS-3201-B (BLACK)

**1.2. Product Use:**

- Aircraft Sealant

**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)

**Emergency Contact Information :**

See Below

**Specification: AMS 7124 / MIL-S-7502**

**Base PART A**

**CLASS B**

<b>NSN:</b>		8030-00-262-9045 CS3201 B4 PINT KIT	8030-00-031-7781 CS3201 B1/2 PINT KIT	8030-00-322-6928 CS3201 B4 GAL KIT	
		8030-00-851-8379 CS3201 B-2 2.5 OZ	8030-00-613-9083 CS3201 B-2 PINT KIT	8030-01-839-2099 CS3201 B4 QT KIT	

**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

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

### CLASSIFICATION OF THE MIXTURE:

ASPIRATION HAZARD - CATEGORY 1  
SKIN CORROSION/IRRITATION - Category 2  
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A  
CARCINOGENICITY - Category 2  
TOXIC TO REPRODUCTION (UNBORN CHILD) - Category 2  
TOXIC TO AQUATIC LIFE - Category 4

### GHS LABEL REQUIREMENTS

#### HAZARD PICTOGRAMS



**SIGNAL WORD : DANGER**

#### HAZARD STATEMENTS:

MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS - H304  
CAUSES SERIOUS EYE IRRITATION - (H319)  
CAUSES SKIN IRRITATION - (H315)  
SUSPECTED OF DAMAGING THE UNBORN CHILD - (H361d)  
SUSPECTED OF CAUSING CANCER - (H351)  
MAY CAUSE LONG LASTING HARMFUL EFFECTS TO AQUATIC LIFE - (H413)

#### PRECAUTIONARY STATEMENTS:

- 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 (or in hair) : Wash with plenty of soap and water. If skin irritation occurs seek medical attention
- 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.

## 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.

1-component mixtures: formaldehyde is released during the curing phase. Formaldehyde may cause irreversible effects, is 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.

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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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**GHS CLASSIFICATION: LIQUID POLYMER** // OSHA HAZARDS: TARGET ORGAN EFFECT, IRRITANT, FLAMMABLE LIQUID

EYE IRRITATION (CATEGORY 2)

SKIN IRRITATION (CATEGORY 2)

SPECIFIC TARGET ORGAN TOXICITY-SINGLE EXPOSURE-(CATEGORY 3)

AQUATIC, CHRONIC (CATEGORY 3)

**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

### **CALCIUM CARBONATE:**

GHS CLASSIFICATION: CALCIUM CARBONATE

EYE DAMAGE (CATEGORY 1)

SKIN IRRITATION (CATEGORY 2)

SPECIFIC TARGET ORGAN TOXICITY-SINGLE EXPOSURE-(CATEGORY 3)

### **Epoxy Resin with Toluene**

FLAMMABLE LIQUIDS - CATEGORY 2

SKIN CORROSION/IRRITATION - CATEGORY 2

SERIOUS EYE DAMAGE/EYE IRRITATION - CATEGORY 2A

SKIN SENSITIZATION - CATEGORY 1

TOXIC TO REPRODUCTION (UNBORN CHILD) - CATEGORY 2

SPECIFIC TARGET ORGAN TOXICITY ( SINGLE EXPOSURE) (NARCOTIC EFFECTS) - CATEGORY 3

AQUATIC HAZARD (ACUTE) - CATEGORY 2

AQUATIC HAZARD (LONG TERM) - CATEGORY 3

**CARBON BLACK:**

MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR

SUBSTANCE % by weight in the product	H&P STATEMENTS	CAS	EINECS/ELINCS
LIQUID POLYMER < 70%	H319,H335,H315,H412,H223, P210,P270,P305+P351+P338 +P313,P306+P361,P370+P260	N/A	POLYMER
TOLUENE (Methylbenzene) < 2%	H225,H304,H315,H319,H332,H336, H361,H371,H401, P210P260,P281,P301+P310,P305+ P351+ P338,P331	108-88-3	203-625-9
Calcium Carbonate <45%	H319 P305+P351+P313,P280	72608-12-9	207-439-9
Epoxy Resin with Toluene <3%	H225, H319, H315, H317, H361d, H336, H400, H412	N/A	N/A
CARBON BLACK <3%	May form combustible dust concentrations in air.	1333-86-4	N/A

**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:** Remove any contact lenses if present and easy to do. Irrigate with clean, fresh water for at least 15 minutes, holding the eye lids 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.

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

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



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.

**HAZARDOUS DECOMPOSITION PRODUCTS INCLUDE:** CARBON DIOXIDE, CARBON MONOXIDE, HALOGENATED COMPOUNDS, METAL OXIDE / OXIDES, SULPHUR OXIDES AND FORMALDEHYDE

Emits toxic fumes when heated.

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.

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#### **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. Wash hands and face before eating, drinking, or smoking.

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.

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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

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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## 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

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

Substance	OSHA	ACGIH TWA
LIQUID POLYMER	Not known	Not known
TOLUENE (Methylbenzene)*	200 ppm	20 ppm
CALCIUM CARBONATE *	5 mg/m <sup>3</sup> ( RESPIRABLE FRACTION)	3 mg/m <sup>3</sup> (RESPIRABLE FRACTION)
CALCIUM CARBONATE *	15mg/m <sup>3</sup> (TOTAL DUST)	10 mg/m <sup>3</sup> (TOTAL DUST)
CARBON BLACK *	3.5 mg/m <sup>3</sup>	3.0 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.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

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- Physical state at: 68 ° F (20 ° C) Liquid
- Flash point: 200 ° F (93 ° C) Method: TCC
- Specific gravity at: 68 ° F (20 ° C) N/A
- Vapor Density: NIL
- Lower Explosive Limit (% vol.): N/A
- Upper Explosive Limit (% vol.): N/A
- Miscibility in water at 20 ° C: NEGLIGIBLE
- VOC: N/A
- Ph : N/A
- Volatile by VOLUME: N/A
- Vapor pressure at: 68 ° F (20 ° C) NIL
- Color: Black
- Appearance: PASTE
- Odor: Polysulfide Odor
- Boiling Point: Unknown
- Material Supports Combustion: Yes

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**10. STABILITY AND REACTIVITY**

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Stable under recommended storage and handling conditions (see SDS section 7).

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

- Carbon Monoxide
- Sulfur Oxides
- Carbon Dioxide
- Formaldehyde
- Halogenated Compounds
- Oxides of Carbon, Nitrogen, Sulfur Dioxide, Trace Hydrogen Sulfide
- Metal Oxide / Oxides
- Smoke

Emits toxic fumes when heated.

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.

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**11. TOXICOLOGICAL INFORMATION**

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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

Formaldehyde is released during curing.

**ACUTE TOXICITY:**

PRODUCT:	RESULT	SPECIES	DOSE	EXPOSURE
Calcium Carbonate	LD50 ORAL	Rat	6450 mg/kg	-
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	-
Epoxy Resin with Toluene	LD50 ORAL	Rat	636 mg/kg	-
	LD50 Dermal	Rat	>2000 mg/kg	-
Carbon Black	LD50 ORAL	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>8000 mg/kg	-

May cause damage to organs through prolonged or repeated exposure.  
 Suspected of causing cancer. Risk depends on level and duration of exposure.  
 Suspected of damaging the unborn child.

**CARCINOGENICITY:**

INGREDIENT	IARC	OSHA	NTP	CAS#
TOLUENE :	3	-	-	108-88-3
Carbon Black	2B			1333-86-4

**SPECIFIC TARGET ORGAN TOXICITY-STOT (SINGLE EXPOSURE)**

LIQUID POLYMER - CATEGORY 3

TOLUENE - CATEGORY 3

**SPECIFIC TARGET ORGAN TOXICITY-STOT (REPEATED EXPOSURE)**

TOLUENE - CATEGORY 2

**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.

**ASPIRATION HAZARD:**

TOLUENE - CATEGORY 1

**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.

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.

Toxicity :

Toxicity :

Product / Ingredient	Test / Exposure	Species	Result
Carbon Black	LC50 (96 Hrs.)	Brachydanio Rerio	>1000 mg/L
	EC50 (24 Hrs.)	Daphnia Magna	>5600 mg/L
Toluene	EC50 (48 Hrs.)	Daphnia	3.78 mg/l
	LC50 (96 Hrs.)	Fish	5.5 mg/l

Persistence and Degradability :

Product / Ingredient	Aquatic Half Life	Photolysis	Biodegradability
Toluene	-	-	Readily (5 days - 81 %)
Epoxy Resins with Toluene	-	-	Not Readily Biodegradeable (28 days - 5%)

Bioaccumulative Potential :

Product / Ingredient	LogP(ow)	BCF	Potential
Toluene	2.73	8.32	low
Epoxy Resins with Toluene	-	31	low

**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: Not regulated

UN Number: Not regulated

IATA: Not regulated

IMDG/IMO: Not regulated

NMFC: 4620 SUB.5 – CL.60

Schedule B # 3506.91.0000

**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)
	TOLUENE (Methylbenzene)	108-88-3	<2%	Unknown
	LIQUID POLYMER	N/A	<70%	Unknown
	Calcium Carbonate	72608-12-9	<45%	Unknown
	Carbon Black	1333-86-4	<3 %	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

**US Regulations State**

California Proposition 65 (Developmental – Female)	<b>TOLUENE</b>	108-88-3	<2%	>= 1.0%
Massachusetts	<b>TOLUENE</b>	108-88-3	<2%	>= 1.0%
New Jersey	<b>TOLUENE</b>	108-88-3	<2%	>= 1.0%
Pennsylvania	<b>TOLUENE</b>	108-88-3	<2%	>= 1.0%
Rhode Island	<b>TOLUENE</b>	108-88-3	<2%	>= 1.0%
California Proposition 65 (Developmental – Female)	LIQUID POLYMER	N/A	<70%	>= 1.0%
Massachusetts	LIQUID POLYMER	N/A	<70%	>= 1.0%
New Jersey	LIQUID POLYMER	N/A	<70%	>= 1.0%
Pennsylvania	LIQUID POLYMER	N/A	<70%	>= 1.0%
Rhode Island	LIQUID POLYMER	N/A	<70%	>= 1.0%
California Proposition 65 (Developmental – Female)	Calcium Carbonate	72608-12-9	<45%	>= 1.0%
Massachusetts	Calcium Carbonate	72608-12-9	<45%	>= 1.0%
New Jersey	Calcium Carbonate	72608-12-9	<45%	>= 1.0%
Pennsylvania	Calcium Carbonate	72608-12-9	<45%	>= 1.0%
Rhode Island	Calcium Carbonate	72608-12-9	<45%	>= 1.0%
California Proposition 65 (Developmental – Female)	Carbon Black	1333-86-4	<3%	>= 1.0%
Massachusetts	Carbon Black	1333-86-4	<3%	>= 1.0%
New Jersey	Carbon Black	1333-86-4	<3%	>= 1.0%
Pennsylvania	Carbon Black	1333-86-4	<3%	>= 1.0%
Rhode Island	Carbon Black	1333-86-4	<3%	>= 1.0%

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

Information On Ingredients: None Were Found

Sara 311/312

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

**Information On Ingredients:**

**Liquid Polymer:** Immediate (acute) Health Hazard

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

**Epoxy Resin with Toluene :** Fire Hazard, Immediate (acute) Health Hazard, Delayed (chronic) Health Hazard

**Carbon Black :** Chronic Health Hazard, Fire Hazard

**Sudden Release Of Pressure:** No Products

**Reactivity:** No Products

**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 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):TOLUENE CAS:108-88-3  
Calcium Carbonate CAS#72608-12-9                      Liquid Polymer cas# N/A  
carbon Black Cas# 1333-86-4

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**16. OTHER INFORMATION**

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HEALTH	2
FLAMMABILITY	0
REACTIVITY	0

HEALTH	2
FLAMMABILITY	0
REACTIVITY	0

\* Customer and / or end user is responsible for determining Personal Protection Equipment

**NFPA**

**HMIS**

Preparer:	Flamemaster / Compliance	Revision Date: 08/14/2019	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**



**13576 Desmond Street**  
**Pacoima, CA 91331 - USA**

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

1.1. Product Identifier: CS-3201 PT B CATALYST CL B BLACK OR TAN ALL  
- Product -Sealing Compound  
- Product reference: CS-3201-B

**1.2. Product Use:**  
- SEALING 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)

**Emergency Contact Information :**  
See Below

**Specification: AMS 7124 / MIL-S-7502**

**CATALYST PART B**

**CLASS B**

<b>NSN:</b>	8030-00-262-9041 CS3201B2 1/2 PINT KIT	8030-00-024-9634 CS3201 B2 PINT KIT	8030-00-275-8117 CS3201 B2 QT KIT	8030-00-322-6928 CS3201 B4 GAL KIT	
	8030-00-031-7781 CS3201 B1/2 PINT KIT	8030-00-851-8379 CS3201 B-2 2.5 OZ	8030-00-613-9083 CS3201 B-2 PINT KIT	8030-01-839-2099 CS3201 B4 QT KIT	
	8030-00-262-9045 CS3201 B4 PINT KIT				

**Emergency Contact:**

CHEMTEL: [WWW.CHEMTELINE.COM](http://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

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

ASPIRATION HAZARD - CATEGORY 1 - H304  
ACUTE TOXICITY (ORAL) 4, H302  
ACUTE TOXICITY (INHALATION) 4, H332  
SKIN CORROSION/IRRITATION - Category 2, H315  
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2, H319  
SKIN SENSITIZATION 1, H317  
CARCINOGENICITY 1B, H350  
TOXIC TO REPRODUCTION (FERTILITY) 2, H361f  
REPRODUCTIVE TOXICITY 1A, H360D  
SPECIFIC TARGET ORGAN TOXICITY (STOT) REPEATED EXPOSURE 2, H373  
ACUTE AQUATIC TOXICITY 1, H400  
CHRONIC AQUATIC TOXICITY 1, H410  
REPRODUCTIVE TOXICITY, EFFECTS ON OR VIA LACTATION

**For A Complete List of H-Statements and Classifications See Section 16**

**OSHA / HCS STATUS :** THIS MATERIAL IS CONSIDERED HAZARDOUS BY THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

Human and Environmental Hazards:

**HAZARD STATEMENTS:**

MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS - H304  
HARMFUL IF SWALLOWED - H302  
HARMFUL IF INHALED - H332  
CAUSES SKIN IRRITATION - H315  
MAY CAUSE AN ALLERGIC SKIN REACTION - H317  
MAY CAUSE CANCER - H350  
CAUSES SERIOUS EYE IRRITATION - H319  
SUSPECTED OF DAMAGING FERTILITY - H361f  
MAY DAMAGE THE UNBORN CHILD - H360D  
MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE - H373  
VERY TOXIC TO AQUATIC LIFE - H400  
VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS - H410  
MAY CAUSE HARM TO BREAST-FED CHILDREN - H362

**HAZARD PICTOGRAMS:**



**SIGNAL WORD:**

**DANGER**

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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.

**HAZARDS NOT OTHERWISE CLASSIFIED: OXIDISING POTENTIAL:** Contact with combustible material may result in fire. Keep away from combustible materials. This material increases the risk of fire and may aid in combustion.

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

Emits toxic fumes when heated.

**Other Hazards that do not result in classification:**

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

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

**Chemical family :** Mixture of organic compounds

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

<b>LEAD DIOXIDE</b>	<b>CAS#1309-60-0</b>	<b>EC#215-174-5</b>	<b>70-80% by weight</b>
OSHA HAZARDS: OXIDIZER, CARCINOGEN, TARGET ORGAN EFFECT, TOXIC BY INHALATION, HARMFUL BY INGESTION			
TERATOGEN,REPRODUCTIVE HAZARD			
TARGET ORGANS: FEMALE REPRODUCTIVE SYSTEM, MALE REPRODUCTIVE SYSTEM, NERVES, BLOOD, KIDNEY			
GHS CLASSIFICATION: LEAD DIOXIDE			
OXIDIZING SOLIDS (CATEGORY 3), H272			
ACUTE TOXICITY, ORAL (CATEGORY 4), H302			
ACUTE TOXICITY, INHALATION (CATEGORY 4),H332			
CARCINOGENICITY (CATEGORY 1B), H350			
REPRODUCTIVE TOXICITY (CATEGORY 1A), H360			
SPECIFIC TARGET ORGAN TOXICITY-REPEATED EXPOSURE (CATEGORY 2), H373			
ACUTE AQUATIC TOXICITY (CATEGORY 1), H400			
CHRONIC AQUATIC TOXICITY (CATEGORY 1), H410			

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**LEAD OXIDE**

**CAS#1317-36-8**

**EC# 215-267-0**

**<10% by weight**

OSHA HAZARDS: CARCINOGEN, TARGET ORGAN EFFECT, TOXIC BY INHALATION, HARMFUL BY INGESTION  
TERATOGEN, REPRODUCTIVE HAZARD

TARGET ORGANS: BLOOD, KIDNEY, NERVES, GASTROINTESTINAL TRACT, REPRODUCTIVE SYSTEM

GHS CLASSIFICATION: LEAD OXIDE

ACUTE TOXICITY, INHALATION (CATEGORY 4), H332

ACUTE TOXICITY, ORAL (CATEGORY 4), H302

CARCINOGENICITY, (ORAL), (CATEGORY 2), H351

REPRODUCTIVE TOXICITY (CATEGORY 1A), H360

SPECIFIC TARGET ORGAN TOXICITY-REPEATED EXPOSURE (CATEGORY 2), H373

ACUTE AQUATIC TOXICITY (CATEGORY 1), H400

CHRONIC AQUATIC TOXICITY (CATEGORY 1), H410

Lead Oxide is included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)

**CHEMICAL NAME: TERPHENYL, HYDROGENATED**

**CAS# 61788-32-7**

**EC# 262-967-7**

**<50% by weight**

AQUATIC CHRONIC (CATEGORY 4) - H413

**CHEMICAL NAME: TERPHENYL**

**CAS# 26140-60-3**

**EC# 247-477-3**

**<10% by weight**

AQUATIC ACUTE (CATEGORY 1) - H400

AQUATIC CHRONIC (CATEGORY 1) - H410

**CHEMICAL NAME: POLYPHENYL, QUATER AND HIGHER**

**CAS# 68956-74-1**

**<10% by weight**

#### **Section -4. FIRST-AID MEASURES**

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**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.

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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.

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.

**Hazardous decomposition products include:** Carbon Dioxide, Carbon Monoxide, Nitrogen Oxides, Sulfur Oxides Metal Oxide / Oxides, Lead Oxides

Emits toxic fumes when heated.

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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.

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 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

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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 )**

<b>Substance</b>	<b>ACGIH TLV</b>
Lead Dioxide	TWA: 0.05 mg/m <sup>3</sup>
Lead oxide	TWA: 0.05 mg/m <sup>3</sup>
Terphenyl, Hydrogenated	TWA: 4.9 mg/m <sup>3</sup> 8 hours TWA: 0.5 ppm 8 hours
Terphenyl	C: 5mg/m <sup>3</sup> C: 0.53 ppm
Zinc Stearate	10.00mg/m <sup>3</sup>

**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.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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- Physical state at: 68 ° F (20 ° C) Liquid
  - Flash point: 200 ° F (93 ° C) Method: TCC
  - Specific gravity at: 68 ° F (20 ° C) N/A
  - Vapor Density: N/A
  - Lower Explosive Limit (% vol.): N/A
  - Upper Explosive Limit (% vol.): N/A
  - Miscibility in water at 20 ° C: NEGLIGIBLE
- Ph : N/A
  - % VOLATILE BY VOLUME - N/A
  - Vapor pressure at: 68 ° F (20 ° C) N/A
  - Color: BROWN
  - Appearance: PASTE
  - Odor: NEGLIGIBLE OILY ODOR
  - Boiling Point: N/A

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## 10. STABILITY AND REACTIVITY

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

- Carbon monoxide
- Sulfur oxides
- Carbon Dioxide
- Oxides of nitrogen
- Metal Oxide / Oxides
- Lead Oxides
- Smoke

Emits toxic fumes when heated.

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.

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## 11. TOXICOLOGICAL INFORMATION

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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

### ACUTE TOXICITY:

PRODUCT:	RESULT	SPECIES	DOSE	EXPOSURE
Lead Dioxide	No Data Available			
	LD50 Intraperitoneal	Guinea Pig	220mg/kg	-
Lead Oxide	No Data Available			
Terphenyl,Hydrogenated	LD50 ORAL	Rat	17500 mg/kg	-
Terphenyl	LD50 Oral	Rat	>1400 mg/kg	-

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**Skin Corrosion / Irritation**

Lead Oxide - Rabbit - Mild Skin Irritation - 24Hours

**Serious Eye Damage / Eye Irritation**

Lead Oxide - Rabbit - No Eye Irritation

**Germ Cell Mutagenicity**

Lead Oxide - Hamster - Embryo - Morphological Transformation

**CARCINOGENICITY:**

INGREDIENT	IARC	OSHA	NTP
Lead Dioxide	2A	Specifically Regulated Carcinogen	Reasonably Anticipated to be Human Carcinogen
Lead Oxide	2A	Specifically Regulated Carcinogen	Reasonably Anticipated to be Human Carcinogen

**Reproductive Toxicity**

Lead Dioxide:

May cause congenital malformation in fetus-Known human reproductive toxicant

Lead Oxide:

May cause congenital malformation in fetus-Known human reproductive toxicant.

**Specific Target Organ Toxicity (STOT) - Repeated Exposure:**

Lead Oxide: May cause damage to organs through prolonged or repeated exposure.

Lead Dioxide: May cause damage to organs through prolonged or repeated exposure

**OTHER INFORMATION CONCERNING LEAD SALTS:**

Lead salts can cross the placenta and induce embryo- and feto- mortality. They also exhibit teratogenic effects in some animal species. Lead has been shown to exhibit adverse effects on human reproduction, embryonic and fetal development, and postnatal development.

Exposure to lead can affect the blood, nervous and digestive systems. Some of the symptoms of exposure include the following: anemia, neuromuscular dysfunction, paralysis, encephalopathy, joint and muscle pain, muscle weakness, headache, dizziness, abdominal pain, diarrhea, constipation, nausea, vomiting, a blue line on the gums, insomnia, and a metallic taste. High levels of exposure produce increased cerebrospinal pressure, brain damage, and stupor which will lead to coma and death. Exposure to lead also produces anorexia and convulsions.

Lead Dioxide: Stomach-Irregularities - Based on human evidence

Lead Oxide: Stomach-Irregularities - Based on human evidence

**Target Organs:** lungs, skin, central nervous system, blood, kidneys, nervous system, liver, spleen, lymphatic system, cardiovascular system, upper respiratory tract, bone marrow, digestive system, eye, lens, cornea

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**12. ECOLOGICAL INFORMATION**

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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**

Lead Oxide - LC 50 - Pimephales promelas (fathead minnow) - 0.298mg/l - 96 hours

Lead Oxide - EC 50 - Daphnia Magna ( water flea) - 0.132 mg/l - 48 hours

**Biodegradability:**

Lead Dioxide - Not readily Biodegradable

Lead Oxide - No data available

**Bioaccumulative Potential:**

Product	LogPow	BCF	Potential
No Data Available			

**Mobility in Soil:**

Not Available

Other environmental effects:

Very toxic to aquatic life with long lasting effects.

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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 base 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.

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**14. TRANSPORT INFORMATION**

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**14. TRANSPORT INFORMATION**

DOT:

UN Number: 3082

UN PROPER SHIPPING NAME - ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LEAD DIOXIDE, TERPHENYL)

**TRANSPORT CLASS - 9****PACKING GROUP - III**

ENVIRONMENTAL HAZARD- YES

MARINE POLLUTANT - Yes

**IMDG**

UN NUMBER - 3082

UN PROPER SHIPPING NAME - ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LEAD DIOXIDE, TERPHENYL)

TRANSPORT CLASS - 9

PACKING GROUP - III

**ENVIRONMENTAL HAZARDS - YES**

MARINE POLLUTANT - Yes

**IATA**

UN NUMBER - 3082

UN PROPER SHIPPING NAME - ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LEAD DIOXIDE, TERPHENYL)

TRANSPORT CLASS - 9

PACKING GROUP - III

ENVIRONMENTAL HAZARDS - YES

MARINE POLLUTANT - N/A

Additional Information:

DOT : Not regulated as hazardous material in sizes ≤ 5L or ≤ 5kg,  
as long as packaging meets the provisions of 173.24 and 173.24a

IMDG : Not regulated as hazardous material in sizes ≤ 5L or ≤ 5kg,  
as long as packaging meets the provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8

IATA : Not regulated as hazardous material in sizes ≤ 5L or ≤ 5kg,  
as long as packaging meets the provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8

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**15. REGULATORY INFORMATION**

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**SARA 311/312****Composition of Ingredients :**

Polyphenyls, quater and higher : Immediate (acute) health hazard

Terphenyl : Immediate (acute) health hazard

Lead Dioxide : No Data Available

Lead Oxide : No Data Available

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**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)
	Lead Dioxide	1309-60-0	70-80%	Unknown
	Lead Oxide	1317-36-8	<10%	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

**US Regulations State**

California Proposition 65 (Developmental – Female)	<b>Lead Dioxide</b>	1309-60-0	70-80%	>= 1.0%
Massachusetts	<b>Lead Dioxide</b>	1309-60-0	70-80%	>= 1.0%
New Jersey	<b>Lead Dioxide</b>	1309-60-0	70-80%	>= 1.0%
Pennsylvania	<b>Lead Dioxide</b>	1309-60-0	70-80%	>= 1.0%
Rhode Island	<b>Lead Dioxide</b>	1309-60-0	70-80%	>= 1.0%
California Proposition 65 (Developmental – Female)	<b>Lead Oxide</b>	1317-36-8	<10%	>= 1.0%
Massachusetts	<b>Lead Oxide</b>	1317-36-8	<10%	>= 1.0%
New Jersey	<b>Lead Oxide</b>	1317-36-8	<10%	>= 1.0%
Pennsylvania	<b>Lead Oxide</b>	1317-36-8	<10%	>= 1.0%
Rhode Island	<b>Lead Oxide</b>	1317-36-8	<10%	>= 1.0%

**California Prop 65 Warning :**

This product contains one or more ingredients known by the state of California to cause cancer, birth defects, or other reproductive harm.

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):

Lead Dioxide CAS#1309-60-0, Lead Oxide CAS#1317-36-8

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**Section 16 Other Information**

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HEALTH	3	HEALTH	3
FLAMMABILITY	1	CHRONIC HEALTH HAZARD	*
REACTIVITY	1	FLAMMABILITY	1
		REACTIVITY	1

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

**NFPA****HMIS**

Preparer-Flamemaster/Compliance

Revision Date: 08/15/2019 Conversion to ANSI format

Containers: Plastic Jars, Metal Cans, Cartridge Kits

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