Flamemaster Corp.
13576 Desmond Street
Pacoima, CA 91331 - USA

SAFETY DATA SHEET
SEPTEMBER 2015

File: CS3201AA GSA 07-10
Sealant Base

Section -1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1. Product Identifier: CS-3201 Part-A Class-A Base (all application times) BLACK
- Product Name: Sealing Compound Part-A
- Product reference: CS-3201-A (BLACK)

1.2. Product Use:
- Sealant

1.3. Manufacturer's Name:	**1.3.1 Suppliers Name (if not manufacturer)**
CAGE Code: 14439 **Flamemaster Corp.** **Chem Seal Division** **13576 Desmond Street** **Pacoima, CA 91333 – USA**	
Technical Contact: **Flamemaster Corp.** **Tel**: 818-890-1401 **Fax:** 818-890-6001 www.flamemaster.com	**1.4. Emergency Telephone:** Chemtrec – Chemtrec International 800-424-9300 (North America) 703-527-3887 (Outside North America))

Specification:		**AMS 7124 / MIL-S-7502**		**Base PT A**	**CLASS A**
NSN:		8030-00-851-8379 CS3201 B-2 2.5 OZ	8030-00-262-9045 CS23201 B-4		
		8030-01-050-8287 CS3201 A1/2 BLK QT	8030-00-559-6131 CS3201 A-2 BLK QT	8030-00-174-3199 CS3201 A-2 PINT	

Section -2. HAZARD (S) IDENTIFICATION

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

CLASSIFICATION OF THE MIXTURE:

FLAMMABLE LIQUIDS - (CATEGORY 2)
SKIN SENSITIZATION - (CATEGORY 1)
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
CARCINOGENICITY - Category 2
RESPIRATORY SENSITIZATION - CATEGORY 1
REPRODUCTIVE TOXICITY - CATEGORY 2
GERM CELL MUTAGENICITY - CATEGORY 2
SPECIFIC TARGET ORGAN TOXICITY-SINGLE EXPOSURE -CATEGORY 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - (NARCOTIC EFFECTS) - CATEGORY 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - CATEGORY 2
ACUTE TOXICITY - (ORAL) - CATEGORY 4
ASPIRATION HAZARD - CATEGORY 1
CHRONIC, AQUATIC - Category 4

GHS LABEL REQUIREMENTS
HAZARD PICTOGRAMS

SIGNAL WORD : DANGER

HAZARD STATEMENTS:

FLAMMABLE LIQUID AND VAPOR (H226)
MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS - (H304)
MAY CAUSE DROWSINESS OR DIZZINESS-(H336)
MAY CAUSE DAMAGE TO ORGANS - (H371)
CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE - (H373)
MAY CAUSE AN ALLERGIC SKIN REACTION - (H317)
SUSPECTED OF CAUSING GENETIC DEFECTS - (H341)
CAUSES SERIOUS EYE IRRITATION - (H319)
CAUSES SKIN IRRITATION - (H315)
SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD - (H361)
SUSPECTED OF CAUSING CANCER - (H351)
MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED - (H334)
HARMFUL IF SWALLOWED - H302
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.
Dust from grinding or abrading may be hazardous if inhaled. Dust may also form concentrations in air that are explosive hazards. This material emits toxic fumes when heated or burned.

Section -3. COMPOSITION / INFORMATION ON INGREDIENTS

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

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: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)

CARBON BLACK:
MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR

PROPRIETARY ADHESION PROMOTER:
ACUTE TOXICITY (INHALATION) - (CATEGORY 4)
SKIN CORROSION / IRRITATION - (CATEGORY2)
SERIOUS EYE DAMAGE / EYE IRRITATION - (CATEGORY 2A)
RESPIRATORY SENSITIZATION - (CATEGORY 1)
SKIN SENSITIZATION - (CATEGORY 1)
GERM CELL MUTAGENICITY - (CATEGORY 2)
CARCINOGENICITY - (CATEGORY 1A)
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - (STOT RE) - (CATEGORY 2)

LIQUID PHENOLIC RESIN:
Skin Sensitization (Category 1)
Carcinogenicity (Category 2)
Acute Toxicity (Category 3), (Dermal)
Acute Toxicity (Category 3) (Inhalation)
Acute Toxicity (Category 3) (Oral)
Aquatic Acute (Category 3)
Flammable Liquid (Category 4)
Skin Corrosion (Category 1B)
Specific Target Organ Toxicity-Single Exposure - STOT SE- (Category 3)

Bisphenol A- 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

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	N/A	POLYMER
	+P313,P306+P361,P370+P260		
LIQUID POLYMER < 70%	H319,H335,H315,H412,H223, P210,P270,P305+P351+P338	N/A	POLYMER
	+P313,P306+P361,P370+P260		
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
CARBON BLACK <3%	May form combustible dust concentrations in air.	1333-86-4	N/A
Calcium Carbonate <45%	H319 P305+P351+P313,P280	72608-12-9	207-439-9
Bisphenol A- Epoxy Resin with Toluene <3%	H225, H319, H315, H317, H361d, H336, H400, H412	N/A	N/A
Liquid Phenolic Resin <2%	H227, H301, H311, H314, H317, H331, H335, H351, H402 P201, P202, P261, P272, P280	N/A	N/A
	P302+P352, P308+P313, P321, P333+P313, P362+P364, P405, P501		
Proprietary Adhesion Promoter <3%	H332, H319, H315, H334, H317, H350, H341, H373	N/A	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. Never give anything by mouth to an unconscious person.

Section -5. FIRE-FIGHTING MEASURES

Extinguishing agents

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

Agents to avoid: None known

Attention

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

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

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

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

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

HAZARDOUS DECOMPOSITION PRODUCTS INCLUDE:

- Carbon Monoxide
- Sulfur Oxides
- Carbon Dioxide
- Formaldehyde
- Aldehydes
- Low Molecular Weight Hydrocarbons
- Halogenated Compounds
- Oxides of Carbon, Sulfur Dioxide, Trace Hydrogen Sulfide
- Metal Oxide / Oxides
- Smoke
- Oxides of Nitrogen
- Calcium Oxide

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.

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

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

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

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

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

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

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

7.2 Storage:

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Engineering measures:

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

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

8.2 Exposure limits

Work place exposure limits (8 hour)

Substance	OSHA	ACGIH TWA
LIQUID POLYMER *	Not known	Not known
LIQUID POLYMER *	Not known	Not known
TOLUENE (Methylbenzene)*	200 ppm	20 ppm
CALCIUM CARBONATE *	5 mg/m³ (RESPIRABLE FRACTION)	3 mg/m³ (RESPIRABLE FRACTION)
CALCIUM CARBONATE *	15mg/m³ (TOTAL DUST)	10 mg/m³ (TOTAL DUST)
CARBON BLACK *	3.5 mg/m³	3.0 mg/m³
* 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 º F (20 º C) Liquid
- Flash point: 40 ° F (4 ° 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 º C: NEGLIGIBLE
- VOC: N/A
- Ph : N/A
- Volatile by VOLUME: N/A
- Vapor pressure at: 68 º F (20 º 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). In case of combustion, may produce hazardous decomposition products such as :

- Carbon Monoxide
- Sulfur Oxides
- Carbon Dioxide
- Formaldehyde
- Aldehydes
- Low Molecular Weight Hydrocarbons
- Halogenated Compounds
- Oxides of Carbon, Sulfur Dioxide, Trace Hydrogen Sulfide
- Metal Oxide / Oxides
- Smoke
- Oxides of Nitrogen
- Calcium Oxide

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/m³	4 Hours
	LC50 Inhalation Vapor	Rat	8000 ppm	4 Hours
	LD50 Dermal	Rabbit	8.39 g/kg	-
	LD50 ORAL	Rat	636 mg/kg	-
Bisphenol A- Epoxy Resin	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 ORAL	Rat	>2000 mg/kg	-
Carbon Black	LD50 Oral	Rat	>8000 mg/kg	-

FLAMMABLE LIQUID AND VAPOR (H226)
MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS - (H304)
MAY CAUSE DROWSINESS OR DIZZINESS-(H336)
MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE - (H373)
MAY CAUSE AN ALLERGIC SKIN REACTION - (H317)
SUSPECTED OF CAUSING GENETIC DEFECTS - (H341)
CAUSES SERIOUS EYE IRRITATION - (H319)
CAUSES SKIN IRRITATION - (H315)
SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD - (H361)
SUSPECTED OF CAUSING CANCER - (H351)
MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED - (H334)
MAY CAUSE LONG LASTING HARMFUL EFFECTS TO AQUATIC LIFE - (H413)

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
LIQUID POLYMER - CATEGORY 3
TOLUENE - CATEGORY 3

SPECIFIC TARGET ORGAN TOXICITY-STOT (REPEATED EXPOSURE)

TOLUENE - CATEGORY 2

TERATOGENICITY:

Bisphenol A- Epoxy Resin with 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. See (SDS Sections 3 and 15)

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

Toxicity :

Product / Ingredient	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 %)
bisphenol A - epoxy resins	-	-	Not Readily Biodegradable (28 days - 5%)

Bioaccumulative Potential :

Product / Ingredient	LogP(ow)	BCF	Potential
Toluene	2.73	8.32	low
bisphenol A - epoxy resins	-	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.

All surplus and waste products should be disposed of by a licensed waste disposal contractor. Empty containers and / or liners may retain product residues. Dispose of this material and its container as a hazardous waste per Federal , State, and 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.

14. TRANSPORT INFORMATION

DOT: § 172.101 HAZARDOUS MATERIALS TABLE
UN Number: 1133
Proper Shipping Name: Adhesives
Labels: Flammable Liquid

IATA:
UN Number: 1133
Proper Shipping Name: Adhesives
Labels: Flammable Liquid

Hazard Class: 3 Subclass: NO
Packaging Group: III
Passenger Air Packing Instruction : 309
Passenger aircraft: 60 Liter (16 gallon)
Cargo Air Packing Instruction : 310
Cargo aircraft only: 220 Liter (58 gallon)

Hazard Class: 3 Subclass: NO
Packaging Group: III
Limited Quantity: Passenger aircraft: 60 Liter (16 gallon)
Cargo aircraft only: 220 Liter (58 gallon)
Vessel stowage: A
ERG: 128
NMFC: 4620 SUB.6 – CL.60
Schedule B # 3506.91.0000

IMDG:
UN Number: 1133
Proper Shipping Name: Adhesives
Label: 3
Hazard Class: 3 Subclass: NO
Packaging Group: III
EMS No: F, E – S, D

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
	LIQUID POLYMER	N/A	<70%	Unknown
	Calcium Carbonate	72608-12-9	<45%	Unknown
	Phenolic Resin	N/A	<10%	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)	**TOLUENE**	108-88-3	<2%	>= 1.0%
Massachusetts	**TOLUENE**	108-88-3	<2%	>= 1.0%
New Jersey	**TOLUENE**	108-88-3	<2%	>= 1.0%
Pennsylvania	**TOLUENE**	108-88-3	<2%	>= 1.0%
Rhode Island	**TOLUENE**	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)	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%
California Proposition 65 (Developmental – Female)	Phenolic Resin	N/A	<10%	>= 1.0%
Massachusetts	Phenolic Resin	N/A	<10%	>= 1.0%
New Jersey	Phenolic Resin	N/A	<10%	>= 1.0%
Pennsylvania	Phenolic Resin	N/A	<10%	>= 1.0%
Rhode Island	Phenolic Resin	N/A	<10%	>= 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

Liquid Polymer: Immediate (acute) Health Hazard

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

Proprietary Adhesion Promoter: Immediate (acute) Health Hazard, Delayed (chronic) Health Hazard

Phenolic Resin: Acute Health Hazard, Chronic Health Hazard

Bisphenol A- Epoxy Resin with Toluene - Fire Hazard, Immediate Acute Health Hazard, 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.

Canada

Class B – Flammable
TOLUENE

Class D - Poisonous and Infectious materials Division 2: Materials Causing Other Toxic Effects D2A TOLUENE D2B TOLUENE CAS# 108-88-3
Liquid Polymer CAS# N/A
Liquid Polymer CAS# N/A
Carbon Black Cas# 1333-86-4
Calcium Carbonate CAS# 72608-12-9

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
Phenolic Resin Cas# Not Available
Liquid Polymer cas# N/A
Carbon Black Cas#1333-86-4

16. OTHER INFORMATION

HEALTH	2
FLAMMABILITY	3
REACTIVITY	0

NFPA

HEALTH	2
CHRONIC	*
FLAMMABILITY	3
REACTIVITY	0

HMIS

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

Preparer:	Flamemaster / Compliance Rev-A 9/02/2015 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

Section -1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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

1.2. Product Use:
- SEALING COMPOUND

1.3. Manufacturer's Name:	**1.3.1 Suppliers Name (if not manufacturer)**
CAGE Code: 14439 **Flamemaster Corp.** **Chem Seal Division** **13576 Desmond Street** **Pacoima, CA 91333 – USA**	
Technical Contact: **Flamemaster Corp.** Tel: 818-890-1401 Fax: 818-890-6001 www.flamemaster.com	**1.4. Emergency Telephone:** Chemtrec – Chemtrec International 800-424-9300 (North America) 703-527-3887 (Outside North America))

Specification: **AMS 7124 / MIL-S-7502** **CATALYST PT B** **CLASS A**

NSN:	8030-00-174-2601 CS3201 A1/2 PT	8030-01-381-1821 CS3201 A1/2 8OZ	8030-00-286-2266 CS3201 A2 1/2 PT	8030-00-174-3199 CS3201 A-2 PINT	
	8030-00-174-2600 CS3201 A-4 PINT	8030-01-050-8287 CS3201 A1/2 BLK QT	8030-00-559-6131 CS3201 A-2 BLK QT	8030-00-275-8116 CS3201 A-2 QUART	

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.

Section -2. HAZARD (S) IDENTIFICATION

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
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2, H319
SKIN CORROSION/IRRITATION - Category 2, H315
ACUTE AQUATIC TOXICITY 1, H400
CHRONIC AQUATIC TOXICITY 1, H410

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:

Harmful by Inhalation and / or Swallowing
Seriously Irritating to Eyes and Skin
May Cause An Allergic Skin Reaction
May Cause Cancer
Suspected of Damaging Fertility
Causes Damage to Organs Through Prolonged or Repeated Exposure
May Damage the Unborn Child
Very Toxic to Aquatic Life with Long Lasting Effects

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).

LEAD DIOXIDE **CAS#1309-60-0** **EC#215-174-5** **70-80% by weight**

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),H33

CARCINOGENICITY (CATEGORY 1B), H350

REPRODUCTIVE TOXICITY (CATEGORY 1A), H360

SPECIFIC TARGET ORGAN TOXICITY-REPEATED EXPOSURE (CATEGORY 2), H3

ACUTE AQUATIC TOXICITY (CATEGORY 1), H400

CHRONIC AQUATIC TOXICITY (CATEGORY 1), H410

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

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

Extinguishing agents

Recommended: Universal resistant foam, CO_2, 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.

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.

Section -7. HANDLING AND STORAGE

7.1 Handling:

No smoking, eating and drinking during handling.

Avoid exposure during pregnancy/while nursing.

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

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

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

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

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

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

7.2 Storage:

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

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Engineering measures:

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

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

8.2 Exposure limits

Work place exposure limits (8 hour)

Substance	ACGIH TLV
Lead Dioxide	TWA: 0.05 mg/m3
Lead oxide	TWA: 0.05 mg/m3
Terphenyl, Hydrogenated	TWA: 4.9 mg/m³ 8 hours
	TWA: 0.5 ppm 8 hours
Terphenyl	C: 5mg/m³
	C: 0.53 ppm
Zinc Stearate	10.00mg/m3

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

- Physical state at: 68 º F (20 º 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 º C: NEGLIGIBLE
- Ph : N/A
- % VOLATILE BY VOLUME - N/A
- Vapor pressure at: 68 º F (20 º C) N/A
- Color: BROWN
- Appearance: PASTE
- Odor: NEGLIGIBLE OILY 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
- Oxides of nitrogen
- Smoke
- Sulfur oxides
- Metal Oxide / Oxides
- Carbon Dioxide
- Lead Oxides

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

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, diarreah, 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

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Harmful by Inhalation and / or Swallowing
Irritating to Eyes and Skin
May Cause An Allergic Skin Reaction
May Cause Cancer
May Damage Fertility or the Unborn Child
May Cause Damage to Organs Through Prolonged or Repeated Exposure

Potential chronic health effects include the following:
May cause damage to organs through prolonged or repeated exposure.
May lead to defatting of the skin and / or irritation.
May lead to allergic reactions.
May cause cancer.
May damage fertility and the unborn child

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

12. ECOLOGICAL INFORMATION

There is no data available on the preparation itself. Do not allow the product to enter drains or water ways. See (SDS Sections 3 and 15)
Never allow this material, any solutions, or any by-products, as well as any run-off, to come into contact with soil, waterways, wildlife habitats, drains, sewers, and / or the ocean. Avoid release into environment.

Toxicity:
Product
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

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.

14. TRANSPORT INFORMATION

DOT US
UN number: 2291 Class: 6.1 Packing Group III
Proper Shipping Name: Lead Peroxide
Hazard Label Required : Toxic

IMDG
UN number: 2291 Class 6.1 Packing Group III
Proper Shipping Name: Lead Peroxide
Marine pollutant: Yes

IATA
UN number: 2291 Class: 6.1 Packing Group III
Proper Shipping Name: Lead Peroxide
Hazard Label Required : Toxic

NMFC: 4620 SUB.6 – CL.60
Schedule B # 3506.91.0000

15. REGULATORY INFORMATION

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

materials Division 2: Materials Causing Other Toxic Effects:
Lead Dioxide Cas#1309-60-0
Lead Oxide Cas# 1317-36-8

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

Section 16 Other Information

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**

Full Text of H Statements Associated with this Compound:

Harmful by Inhalation and / or Swallowing
Irritating to Eyes and Skin
May Cause An Allergic Skin Reaction
May Cause Cancer
May Damage Fertility or the Unborn Child
May Cause Damage to Organs Through Prolonged or Repeated Exposure
Very Toxic to Aquatic Life with Long Lasting Effects

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Preparer-Flamemaster/Compliance Revision Notes: A Conversion to ANSI format
Rev A AUGUST 2015
Supercedes(Conversion)

Containers: Plastic Jars, Metal Cans, Cartridge Kits

Maximum Container Size: 50 Gallons/190 Liters

Notice to reader:
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In all cases, the user must determine the applicability of all information and recommendations contained herein as well as the suitability of this product for their own particular needs or purposes.
This product may be hazardous and should always be used with care and discretion. Every effort has been made to describe all known hazards, but this in no way guarantees the above mentioned hazards are the only hazards present.
Flamemaster Corporation, its Affiliates and its Agents, shall in no way be held liable for any damages resulting from handling, using, storing, disposing of, or from contact with this product. User assumes all risk.

END OF SAFETY DATA SHEET