

Section -1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

- 1.1. Product Identifier: CS-5500 High Temperature Fuel Tank Sealant-Pre-mixed and Frozen CLA ALL
 - Product Name: High Temperature Fuel Tank Sealant / Premixed and Frozen CLA ALL
 - Product reference: CS-5500-Premixed and Frozen CLA ALL

1.2. Product Use:

- High Temperature Fuel Tank Sealant Pre-Mixed and Frozen

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

1.4. Emergency Telephone:

Chemtrec – Chemtrec International
 800-424-9300 (North America)
 703-527-3887 (Outside North America))

Specification: MIL-S-83430/AMS3276/FMS1044/FMS3055 Pre-Mixed and Frozen CLASS A ALL

Vapors are heavier than air and will collect at low points. Dry ice releases Carbon Dioxide and poses serious suffocation hazard. In confined areas or areas without proper ventilation wear self contained breathing apparatus. MAY CAUSE CRYOGENIC BURNS OR OTHER INJURY

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:

ASPIRATION HAZARD - (CATEGORY 1)
ACUTE TOXICITY, INHALATION (CATEGORY 4) - H332
ACUTE TOXICITY, ORAL (CATEGORY 4) - H302
SKIN SENSITIZATION 1, H317
TOXIC TO REPRODUCTION (FERTILITY) 2, H361f
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION (UNBORN CHILD) - Category 2
SPECIFIC TARGET ORGAN TOXICITY-SINGLE EXPOSURE-(CATEGORY 3)
SPECIFIC TARGET ORGAN TOXICITY(REPEATED EXPOSURE) - Category 2
AQUATIC CHRONIC - CATEGORY 4

GHS LABEL REQUIREMENTS

HAZARD PICTOGRAMS



SIGNAL WORD : DANGER

HAZARD STATEMENTS:

SUSPECTED OF DAMAGING FERTILITY - H361f
HARMFUL BY INHALATION AND / OR SWALLOWING
MAY CAUSE AN ALLERGIC SKIN REACTION - H317
CAUSES SERIOUS EYE IRRITATION - (H319)
CAUSES SKIN IRRITATION - (H315)
SUSPECTED OF DAMAGING THE UNBORN CHILD - (H361d)
SUSPECTED OF CAUSING CANCER - (H351)
MAY CAUSE DAMAGE TO ORGANS - (H371)
MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE - (H373)
MAY CAUSE LONG LASTING HARMFUL EFFECTS TO AQUATIC LIFE - (H413)
MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS - (H304)
MAY CAUSE CRYOGENIC BURNS OR OTHER INJURY

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.

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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.

In the event of sanding, grinding, or abrading:

H372 Causes damage to organs through prolonged or repeated exposure.

Vapors are heavier than air and will collect at low points. Dry ice releases Carbon Dioxide and poses serious suffocation hazard. In confined areas or areas without proper ventilation wear self contained breathing apparatus. MAY CAUSE CRYOGENIC BURNS OR OTHER INJURY

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 POLYSULFIDE POLYMER // OSHA HAZARDS: TARGET ORGAN EFFECT,IRRITANT

Cas# N/A	EC# N/A	Weight % <=71%
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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

Cas# 108-88-3	EC#203-625-9	Weight % <=15%
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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

2-BUTANONE

Cas# 78-93-3	EC#201-159-0	Weight % <=15%
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OSHA HAZARDS: FLAMMABLE LIQUID, TARGET ORGAN EFFECT, IRRITANT

TARGET ORGANS: CENTRAL NERVOUS SYSTEM

GHS CLASSIFICATION: 2-BUTANONE

FLAMMABLE LIQUIDS (CATEGORY 2)

ACUTE TOXICITY, ORAL (CATEGORY 5)

EYE IRRITATION (CATEGORY 2A)

SPECIFIC TARGET ORGAN TOXICITY-SINGLE EXPOSURE (CATEGORY 3), CENTRAL NERVOUS SYSTEM

OTHER HAZARDS: REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS AND CRACKING

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CALCIUM CARBONATE:

Cas# 72608-12-9 EC#207-439-9 Weight % <=35%

GHS CLASSIFICATION: CALCIUM CARBONATE
EYE DAMAGE (CATEGORY 1)
SKIN IRRITATION (CATEGORY 2)
SPECIFIC TARGET ORGAN TOXICITY-SINGLE EXPOSURE-(CATEGORY 3)

PHENOLIC FORMALDEHYDE POLYMER: HAZARD INFORMATION

Cas# N/A EC# N/A Weight % <=5%

PHYSICAL/CHEMICAL HAZARDS: CORROSIVE
HUMAN HEALTH HAZARDS: HARMFUL BY INHALATION, CORROSIVE TO THE EYES AND SKIN
ENVIRONMENTAL HAZARDS: TOXIC TO AQUATIC ORGANISMS
GHS CLASSIFICATION: PHENOLIC RESIN
ACUTE TOXICITY,ORAL (CATEGORY 4)
ACUTE TOXICITY,DERMAL (CATEGORY 4)
SKIN CORROSIVE (CATEGORY 1B)
EYE IRRITATION (CATEGORY 2)
SKIN IRRITATION (CATEGORY 2)
EYE DAMAGE (CATEGORY1)
AQUATIC CHRONIC (CATEGORY 2)

TITANIUM DIOXIDE

Cas# 13463-67-7 EC#236-675-5 Weight % <=3%

OSHA HAZARDS: CARCINOGEN
GHS CLASSIFICATION: TITANIUM DIOXIDE
SKIN IRRITATION: (CATEGORY 3)
CARCINOGENICITY (CATEGORY 2)

CHEMICAL NAME: MANGANESE DIOXIDE

CAS# 1313-13-9 EC# 215-202-6 <50% by weight

OSHA HAZARDS: TARGET ORGAN EFFECT,TOXIC BY INHALATION
TARGET ORGANS: NERVES, LUNGS
GHS CLASSIFICATION:
ACUTE TOXICITY,ORAL (CATEGORY 4) - H302
ACUTE TOXICITY,INHALATION (CATEGORY 4) - H332

CHEMICAL NAME: TERPHENYL, HYDROGENATED

CAS# 61788-32-7 EC# 262-967-7 <50% by weight

AQUATIC CHRONIC (CATEGORY 4) - H413

CHEMICAL NAME: ZEOLITES

CAS#1318-02-1 EC# 215-283-8 <10% by weight

NOT CLASSIFIED

CHEMICAL NAME: TALC

CAS# 14807-96-6 EC# 238-877-9 <5% by weight

NOT CLASSIFIED

CHEMICAL NAME: CARBON BLACK

CAS# 1333-86-4 EC# 215-609-9 <3% by weight

NOT CLASSIFIED

CHEMICAL NAME: TERPHENYL

CAS# 26140-60-3 EC# 247-477-3 <2% by weight

AQUATIC ACUTE (CATEGORY 1) - H400
AQUATIC CHRONIC (CATEGORY 1) - H410

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CHEMICAL NAME: 1,3 DIPHENYLGUANIDINE CAS# 102-06-7 EC# 203-002-1 <3% by weight
ACUTE TOXICITY (CATEGORY 4) - H302
SKIN IRRITATION (CATEGORY 2) - H315
EYE IRRITATION (CATEGORY 2) - H319
REPRODUCTIVE (CATEGORY 2) - H361f (FERTILITY)
STOT-SINGLE EXPOSURE (CATEGORY 3) - H335
AQUATIC CHRONIC (CATEGORY 2) - H411

CHEMICAL NAME: BIS(PIPERIDINOTHIOCARBONYL) TETRASULFIDE CAS# 120-54-7 EC# 204-406-0 <3% by weight
SKIN SENSITIVITY (CATEGORY 1) - H317

CHEMICAL NAME: POLYPHENYL, QUATER AND HIGHER CAS# 68956-74-1 <10% by weight

MAGNESIUM CARBONATE CAS# 546-93-0 <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.

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.

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.

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, HALOGENATED COMPOUNDS, AND METAL OXIDE / OXIDES, FORMALDEHYDE, NITROGEN OXIDES, SULFUR OXIDES.

Oxides of Carbon, Nitrogen, Sulfur Dioxide, Trace Hydrogen Sulfide, Manganese Compounds

Vapors are heavier than air and will collect at low points. Dry ice releases Carbon Dioxide and poses serious suffocation hazard. In confined areas or areas without proper ventilation wear self contained breathing apparatus.

MAY CAUSE CRYOGENIC BURNS OR OTHER INJURY

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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.

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.

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MAY CAUSE CRYOGENIC BURNS OR OTHER INJURY

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

Vapors are heavier than air and will collect at low points. Dry ice releases Carbon Dioxide and poses serious suffocation hazard. In confined areas or areas without proper ventilation wear self contained breathing apparatus.

MAY CAUSE CRYOGENIC BURNS OR OTHER INJURY

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.

Vapors are heavier than air and will collect at low points. Dry ice releases Carbon Dioxide and poses serious suffocation hazard. In confined areas or areas without proper ventilation wear self contained breathing apparatus.

MAY CAUSE CRYOGENIC BURNS OR OTHER INJURY

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8.2 Exposure limits

Work place exposure limits (8 hour)

Substance	OSHA	ACGIH TWA
ALIPHATIC POLYSULFIDE-POLYMER	Not known	Not known
TOLUENE (Methylbenzene)*	200 ppm	20 ppm
2-BUTANONE (MEK) *	200 ppm	200 ppm
PHENOLIC FORMALDEHYDE POLYMER *	N/E	N/E
CALCIUM CARBONATE *	5 mg/m ³ (RESPIRABLE FRACTION)	3 mg/m ³ (RESPIRABLE FRACTION)
CALCIUM CARBONATE *	15mg/m ³ (TOTAL DUST)	10 mg/m ³ (TOTAL DUST)
TITANIUM DIOXIDE *	15mg/m ³ (TOTAL DUST)	10 mg/m ³ (TOTAL DUST)
Substance	ACGIH TLV	
Manganese Dioxide *	TWA: 0.1mg/m ³ (as Mn) 8 hours (Inhalable Fraction) TWA: 0.02mg/m ³ (as Mn) 8 hours (Respirable Fraction)	
Terphenyl, Hydrogenatec *	TWA: 4.9 mg/m ³ 8 hours TWA: 0.5 ppm 8 hours	
Zeolites *	TWA: 1mg/m ³ 8 hours (Respirable Fraction)	
Talc *	TWA: 2mg/m ³ 8 hours (Respirable Fraction)	
Carbon Black *	TWA: 3mg/m ³ 8 hours (Inhalable Fraction)	
Terphenyl *	C: 5mg/m ³ C: 0.53 ppm	
MAGNESIUM CARBONATE *	TWA: 5mg/m ³ (Respirable Fraction) TWA: 15 mg/m ³ 8 hours (Total Dust)	

* 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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MAY CAUSE CRYOGENIC BURNS OR OTHER INJURY

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state at: 68 ° F (20 ° C) SOLID
- Flash point: 200 ° F (16.67 ° C) Method: TCC
- Specific gravity: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
- VOC : N/A
- Ph : N/A
- Volatile by Volume % : N/A
- Vapor pressure at: 68 ° F (20 ° C) N/A
- Color: Dark Grey to Black
- Appearance: Paste
- Odor: Polysulfide Odor
- Boiling Point: N/A
- 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
- Halogenated Compounds
- Oxides of Carbon,Nitrogen,Sulfur Dioxide,Trace Hydrogen Sulfide
- Metal Oxide / Oxides
- Manganese Compounds

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.

Vapors are heavier than air and will collect at low points. Dry ice releases Carbon Dioxide and poses serious suffocation hazard. In confined areas or areas without proper ventilation wear self contained breathing apparatus.
MAY CAUSE CRYOGENIC BURNS OR OTHER INJURY

11. TOXICOLOGICAL INFORMATION

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

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

Symptoms and signs of overexposure include headache, dizziness, fatigue, muscular weakness, drowsiness, reduced fetal weight, increase in fetal deaths, skeletal malformations, and in extreme cases loss of consciousness

Repeated or prolonged contact with the preparation may cause Defatting of the skin resulting in non-allergic dermatitis and absorption through the skin.

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

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

ACUTE TOXICITY:

PRODUCT:	RESULT	SPECIES	DOSE	EXPOSURE
Calcium Carbonate	LD50 ORAL	Rat	6450 mg/kg	-
Butanone	LC50 Inhalation Vapor	Rat	11243 ppm	4 Hours
	LD50 Dermal	Rabbit	6480 mg/kg	-
	LD50 ORAL	Rat	2737 mg/kg	-
Toluene	LC50 Inhalation Vapor	Rat	49 g/m ³	4 Hours
	LC50 Inhalation Vapor	Rat	8000 ppm	4 Hours
	LD50 Dermal	Rabbit	8.39 g/kg	-
	LD50 ORAL	Rat	636 mg/kg	-
Titanium Dioxide	LD50 ORAL	Rat	>10g/kg	-

PRODUCT:	RESULT	SPECIES	DOSE	EXPOSURE
Manganese Dioxide	LD50 ORAL	Rat	3478 mg/kg	-
Terphenyl,Hydrogenated	LD50 ORAL	Rat	17500 mg/kg	-
Zeolites	LD50 ORAL	Rat	>5 g/kg	-
Carbon Black	LD50 Dermal	Rabbit	>3 g/kg	-
	LD50 Oral	Rat	>15400mg/kg	-
Terphenyl	LD50 Oral	Rat	>1400 mg/kg	-
1, 3-Diphenylguanidine	LD50 Oral	Rat	323mg/kg	-
Magnesium Carbonate	LD50 Oral	Rat	8000mg/kg	-

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MAY CAUSE CRYOGENIC BURNS OR OTHER INJURY

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
TOLUENE :	3	-	-
TITANIUM DIOXIDE :	2B	-	-
Zeolites	3	-	-
Carbon Black, Respirable Powder	2B	-	-

SPECIFIC TARGET ORGAN TOXICITY-STOT (SINGLE EXPOSURE)

BUTANONE - CATEGORY 3

LIQUID POLYMER - CATEGORY 3

TOLUENE - CATEGORY 3

LIQUID POLYMER - CATEGORY 3

1,3-Diphenylguanidine - (Category 3)

Zeolites - (Category 3)

Talc - (Category 3)

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SPECIFIC TARGET ORGAN TOXICITY-STOT (REPEATED EXPOSURE)

TOLUENE - CATEGORY 2

Manganese Dioxide - (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

ASPIRATION HAZARD - (CATEGORY 1)

May Be Fatal if Swallowed and Enters Airways

12. ECOLOGICAL INFORMATION

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

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

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 :

Product / Ingredient	Result	Species	Exposure
Titanium Dioxide	Acute LC50>100mg/l Fresh Water	Daphnia	48 Hours

Persistence and Degradability :

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

Bioaccumulative Potential :

Product / Ingredient	LogP(ow)	BCF	Potential
Butanone	.29	-	low
Toluene	2.73	8.32	low
1,3 Diphenylguanidine	1.69	19.95	Low
Bis(piperidinothiocarbonyl) tetrasulfide	2.8	16.98	Low

Mobility in Soil : Not Available

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13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

DOT: § 172.101 HAZARDOUS MATERIALS TABLE
UN Number: 1845
Proper Shipping Name: Carbon Dioxide Solid (Dry Ice)
Labels: Carbon Dioxide Solid (Dry Ice)

IATA:
 UN Number: 1845
 Proper Shipping Name: Carbon Dioxide Solid (Dry Ice)
 Labels: Carbon Dioxide Solid (Dry Ice)
 Hazard Class: 9 Subclass: NO
 Packaging Group: III
 Passenger Air Packing Instruction : 355
 Passenger aircraft: 60 Liter (16 gallon)
 Cargo Air Packing Instruction : 366
 Cargo aircraft only: 220 Liter (58 gallon)

Hazard Class: 9 Subclass: NO
 Packaging Group: III
 Limited Quantity: Passenger aircraft: 10 Liter (2.64 Gallons)
 Cargo aircraft only: 220 Liter (58 gallon)
 Vessel stowage: A
 ERG: 128
 NMFC 4620 sub.5-CL.60
 Schedule B # 3506.91.0000

IMDG:
 UN Number: 1845
 Proper Shipping Name: Carbon Dioxide Solid (Dry Ice)
 Label: Carbon Dioxide Solid (Dry Ice)
 Hazard Class: 9 Subclass: NO
 Packaging Group: III
 EMS No: F, E – S, D

Vapors are heavier than air and will collect at low points. Dry ice releases Carbon Dioxide and poses serious suffocation hazard. In confined areas or areas without proper ventilation wear self contained breathing apparatus. MAY CAUSE CRYOGENIC BURNS OR OTHER INJURY

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	<=15%	unknown
	LIQUID POLYMER	N/A	50%-71%	unknown
	2-BUTANONE	78-93-3	<=15%	unknown
	PHENOLIC POLYMER	N/A	<5%	unknown
	Calcium Carbonate	72608-12-9	<35%	unknown
	Titanium Dioxide	*13463-67-7	< 3%	unknown
	Manganese Dioxide	1313-13-9	<65%	unknown
	*(DELETED CAS# 98084-96-9)			

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

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.

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

SARA 311/312

Classification: Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition of Ingredients :

Butanone: Fire Hazard, Immediate (acute) Health Hazard

Polysulfide Polymer: Immediate (acute) Health Hazard

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

Phenolic Formaldehyde Polymer: Immediate (acute) Health Hazard

Titanium Dioxide: Delayed (chronic) Health Hazard

Manganese Dioxide : Immediate (acute) health hazard
Delayed (chronic) health hazard

Zeolites : Immediate (acute) health hazard

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

Talc : Immediate (acute) health hazard

Carbon Black : Fire Hazard
Delayed (chronic) health hazard

Terphenyl : Immediate (acute) health hazard

1,3-Diphenylguanidine : Fire Hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Bis(piperidinothiocarbonyl) : Fire Hazard
tetrasulfide Immediate (acute) health hazard

Sudden Release Of Pressure: No Products

Reactivity: No Products

United States: Sara 302/304 (Sara 304 RQ): Not Applicable
Information On Ingredients: None Were Found

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US Regulations State

California Proposition 65 (Developmental – Female)	TOLUENE	108-88-3	<= 15%	>= 1.0%
Massachusetts	TOLUENE	108-88-3	<=15%	>= 1.0%
New Jersey	TOLUENE	108-88-3	<=15%	>= 1.0%
Pennsylvania	TOLUENE	108-88-3	<=15%	>= 1.0%
Rhode Island	TOLUENE	108-88-3	<=15%	>= 1.0%
California Proposition 65 (Developmental – Female)	LIQUID POLYMER	N/A	50%-71%	>= 1.0%
Massachusetts	LIQUID POLYMER	N/A	50%-71%	>= 1.0%
New Jersey	LIQUID POLYMER	N/A	50%-71%	>= 1.0%
Pennsylvania	LIQUID POLYMER	N/A	50%-71%	>= 1.0%
Rhode Island	LIQUID POLYMER	N/A	50%-71%	>= 1.0%
California Proposition 65 (Developmental – Female)	2-BUTANONE	78-93-3	<=15%	>= 1.0%
Massachusetts	2-BUTANONE	78-93-3	<=15%	>= 1.0%
New Jersey	2-BUTANONE	78-93-3	<=15%	>= 1.0%
Pennsylvania	2-BUTANONE	78-93-3	<=15%	>= 1.0%
Rhode Island	2-BUTANONE	78-93-3	<=15%	>= 1.0%
California Proposition 65 (Developmental – Female)	PHENOLIC POLYMER	N/A	<5%	>= 1.0%
Massachusetts	PHENOLIC POLYMER	N/A	<5%	>= 1.0%
New Jersey	PHENOLIC POLYMER	N/A	<5%	>= 1.0%
Pennsylvania	PHENOLIC POLYMER	N/A	<5%	>= 1.0%
Rhode Island	PHENOLIC POLYMER	N/A	<5%	>= 1.0%
California Proposition 65 (Developmental – Female)	Calcium Carbonate	72608-12-9	<35%	>= 1.0%
Massachusetts	Calcium Carbonate	72608-12-9	<35%	>= 1.0%
New Jersey	Calcium Carbonate	72608-12-9	<35%	>= 1.0%
Pennsylvania	Calcium Carbonate	72608-12-9	<35%	>= 1.0%
Rhode Island	Calcium Carbonate	72608-12-9	<35%	>= 1.0%
California Proposition 65 (Developmental – Female)	Titanium Dioxide	13463-67-7	<3%	>= 1.0%
Massachusetts	Titanium Dioxide	13463-67-7	<3%	>= 1.0%
New Jersey	Titanium Dioxide	13463-67-7	<3%	>= 1.0%
Pennsylvania	Titanium Dioxide	13463-67-7	<3%	>= 1.0%
Rhode Island	Titanium Dioxide	13463-67-7	<3%	>= 1.0%

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California Proposition 65 (Developmental – Female)	MANGANESE DIOXIDE	1313-13-9	< 65%	>=1.0%
Massachusetts	MANGANESE DIOXIDE	1313-13-9	< 65%	>=1.0%
New Jersey	MANGANESE DIOXIDE	1313-13-9	< 65%	>=1.0%
Pennsylvania	MANGANESE DIOXIDE	1313-13-9	<65%	>=1.0%
Rhode Island	MANGANESE DIOXIDE	1313-13-9	<65%	>=1.0%

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.

Vapors are heavier than air and will collect at low points. Dry ice releases Carbon Dioxide and poses serious suffocation hazard. In confined areas or areas without proper ventilation wear self contained breathing apparatus. MAY CAUSE CRYOGENIC BURNS OR OTHER INJURY

Canada



Class B – Flammable
TOLUENE
2-BUTANONE



Class D - Poisonous and Infectious materials Division 2: Materials Causing Other Toxic Effects D2A TOLUENE D2B TOLUENE

- Liquid Polysulfide Polymer CAS# N/A
- 2-BUTANONE CAS#78-93-3
- PHENOLIC RESIN CAS# N/A
- Calcium Carbonate CAS# 72608-12-9
- Titanium Dioxide CAS# 13463-67-7
- Manganese Dioxide CAS# 1313-13-9

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 Liquid Polysulfide Polymer cas#N/A
 2-BUTANONE CAS#78-93-3 PHENOLIC FORMALDEHYDE POLYMER CAS# N/A
 Calcium Carbonate CAS#72608-12-9 Titanium Dioxide CAS#13463-67-7
 Manganese Dioxide CAS# 1313-13-9

16. OTHER INFORMATION

HEALTH	3
FLAMMABILITY	1
REACTIVITY	0

NFPA

HEALTH	3
FLAMMABILITY	1
REACTIVITY	0

HMIS

Customer and / or end user is responsible for determining PPE

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Preparer:	Flamemaster / Compliance Rev-A 4/02/2015 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