

Section -1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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

1.2. Product Use:
 - High Temperature Fuel Tank 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

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	ALL
NSN:	8030-01-387-1001	8030-01-408-3769	8030-01-408-3770	8030-01-381-5302	8030-01-381-5291
	CS5500 A2 6OZ	CS5500 B1/2 - JAR	CS5500 B1/2 - JAR	CS5500 B1/2 6OZ	CS5500 B1/2 2.5 OZ
	8030-01-387-1061	8030-01-383-3953	8030-01-383-4185	8030-01-380-9542	8030-01-509-8518
	CS5500 B6 6 OZ	CS5500 B2 6OZ	CS5500 B2 2.5 OZ	CS5500 B2 CUP	CS5500 B2 - JAR

Section -2. HAZARD (S) IDENTIFICATION

Flammable
 Possible adverse risk to the fetus.
 Skin and eye irritant.
 Harmful if swallowed.
 Harmful if inhaled.
 Possible harm to aquatic organisms.
 May cause long term adverse effects in the aquatic environment.

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, FLAMMABLE LIQUID EYE IRRITATION (CATEGORY 2)

SKIN IRRITATION (CATEGORY 2)

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

AQUATIC, CHRONIC (CATEGORY 3)

SUBSTANCE % by weight in the product	H&P Statements	CAS	EINECS/ELINCS
LIQUID POLYSULFIDE-POLYMER < 71%	H319,H335,H315,H412,H223 P210,P270,P305+P351+P338+ P313,P306+P361,P370+P260	68611-50-7	POLYMER

CHEMICAL NAME: MANGANESE DIOXIDE
 OSHA HAZARDS: TARGET ORGAN EFFECT, TOXIC BY INHALATION
 TARGET ORGANS: NERVES, LUNGS
 GHS CLASSIFICATION:
 ACUTE TOXICITY, ORAL (CATEGORY 5)
 ACUTE TOXICITY, INHALATION (CATEGORY 4)

SUBSTANCE % by weight in the product	H&P Statements	CAS	EINECS/ELINCS
Manganese Dioxide <=10%	H272,H302,H332,H373	1313-13-9	215-202-6
Manganese Dioxide <=10%	P280,P210,P221,P371+P380+ P375P304+P340,P312	1313-13-9	215-202-6

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: Irrigate with clean, fresh water for at least 15 minutes, holding the eyelids apart, and seek 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

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.

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.

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.

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.

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.

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.

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.

8.2 Exposure limits

Work place exposure limits (8 hour)

Substance	OSHA PEL	ACGIH TLV
* LIQUID POLYSULFIDE-POLYMER < 71%	Not known	Not known
* Manganese Dioxide <=10%	5 ppm	5mg/m ³
* 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.

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.

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.

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.

Eye protection :

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

Skin protection :

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

9. PHYSICAL AND CHEMICAL PROPERTIES

- | | |
|---|---|
| <ul style="list-style-type: none">• Physical state at: 68 ° F (20 ° C) Solid• Flash point: 93 Deg. C--- 200 Deg. F Method: TCC• Specific gravity at: 68 ° F (20 ° C) 1.60 g/cm³• Vapor Density: NIL• Lower Explosive Limit-N/A• Upper Explosive Limit- N/A• Miscibility in water at 20 ° C: NEGLIGIBLE | <ul style="list-style-type: none">• Ph : 8.5• % Volatile by volume: 2.0 %• Vapor pressure at: 68 ° F (20 ° C) NIL• Color: GREY COLOR• Appearance: Paste• Odor: POLYSULFIDE 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 H₂S, CO₂, SO₂,CO
- Sulfur oxides SMOKE

11. TOXICOLOGICAL INFORMATION

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

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

Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness, and in extreme cases loss of consciousness.

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

The liquid splashed in the eyes may cause irritation and damage.

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)

13. DISPOSAL CONSIDERATIONS

Recommended incineration or land fill as hazardous waste per Federal, State and local regulations.

Dispose as hazardous waste per Federal, State and local regulations. Recommended incineration or land fill.

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)

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

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)

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.

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
	LIQUID POLYMER	68611-50-7	<71%	unknown
	MANGANESE DIOXIDE	1313-13-9	<=10%	unknown

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)	Liquid Polymer	68611-50-7	<71%	unknown
California Proposition 65 (Developmental – Female)	Manganese Dioxide	1313-13-9	<=10%	unknown
Massachusetts	Liquid Polymer	68611-50-7	<71%	unknown
Massachusetts	Manganese Dioxide	1313-13-9	<=10%	unknown
New Jersey	Liquid Polymer	68611-50-7	<71%	unknown
New Jersey	Manganese Dioxide	1313-13-9	<=10%	unknown
Pennsylvania	Liquid Polymer	68611-50-7	<71%	unknown
Pennsylvania	Manganese Dioxide	1313-13-9	<=10%	unknown
Rhode Island	Liquid Polymer	68611-50-7	<71%	unknown
Rhode Island	Manganese Dioxide	1313-13-9	<=10%	unknown

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Class D - Poisonous and Infectious materials Division 2: Materials Causing Other Toxic Effects D2A LIQUID POLYSULFIDE POLYMER, MANGANESE DIOXIDE D2B

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

Listed National Pollutant Release Inventory (NPRI): LIQUID POLYSULFIDE POLYMER CAS#68611-50-7

MANGANESE DIOXIDE CAS#1313-13-9

16. OTHER INFORMATION

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0



HMIS

PPE

Full text of P statements with N^o 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
- P282: Wear cold insulating gloves/face shield/eye protection
- P285: In case of inadequate ventilation wear respiratory protection
- P301+P310+P331: If swallowed: Immediately call a POISON CENTER or doctor/physician. Do not induce vomiting.
- P305+P351+P338+P315: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses,if present and easy to do. Continue rinsing. Get immediate medical advice attention.
- P304+P340+P314: If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell
- P342+P340+P315: If experiencing respiratory symptoms: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical advice/attention.
- P302+P352: If on skin: Wash with plenty of soap and water
- P306+P361: If on clothing: Remove/ take off immediately all contaminated clothing
- P402+P403+P404: Store in a dry place. Store in a well ventilated space. Store in a closed container.
- P233+P234+P235: Keep container tightly closed. Keep only in original container. Keep cool.

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Full text of H statements with N^o appearing in Section 3:

- H412: Harmful to aquatic life with long lasting effects
- H360Fd: May damage fertility. Suspected of damaging the unborn child.
- H373: May cause damage to organs through prolonged or repeated exposure.
- H304: May be fatal if swallowed and enters airways.
- H315: Causes skin irritation
- H336: May cause drowsiness or dizziness
- H318: Causes serious eye damage
- H302+H332: Harmful if swallowed. Harmful if inhaled
- H340+H350: May cause genetic defects. May cause cancer.

Preparer:	Flamemaster / Compliance Rev-A June/09/2010 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		

End of Safety Data Sheet