

Section -1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1. Product Identifier: S-885 Thermal Insulating Ablative Coating / Part A
- Product Name: Thermal Insulating Ablative Coating / Base compound Part-A
- Product reference: S-885

1.2. Product Use:
- Thermal Insulating Ablative Coating

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: STM K799

Base PART A

NSN -NONE ISSUED FOR THIS PRODUCT

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,ORAL - CATEGORY 4

ACUTE TOXICITY (INHALATION) - CATEGORY 4

CARCINOGENICITY - Category 2

SKIN CORROSION/IRRITATION - Category 2

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

SKIN SENSITIZATION - CATEGORY 1

TOXIC TO REPRODUCTION - CATEGORY 2

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

SPECIFIC TARGET ORGAN TOXICITY-SINGLE EXPOSURE - CATEGORY 3

SPECIFIC TARGET ORGAN TOXICITY-REPEAT EXPOSURE -CATEGORY 2

AQUATIC (CHRONIC) - CATEGORY 4

GHS LABEL REQUIREMENTS:

HAZARD PICTOGRAMS:



SIGNAL WORD : DANGER

HAZARD STATEMENTS:

MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS - H304

HARMFUL IF SWALLOWED - H302

HARMFUL IF INHALED - H332

SUSPECTED OF CAUSING CANCER - H351

CAUSES SKIN IRRITATION - H315

CAUSES SERIOUS EYE IRRITATION - H319

MAY CAUSE AN ALLERGIC SKIN REACTION - H317

SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD - H361

MAY CAUSE DROWSINESS OR DIZZINESS - H336

MAY CAUSE RESPIRATORY IRRITATION - H335

MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE - H373

MAY CAUSE LONG LASTING HARMFUL EFFECTS TO AQUATIC LIFE - H413

In the event of sanding, grinding, or abrading:

H372 Causes damage to organs through prolonged or repeated exposure.

Hazards Not Otherwise Classified (HNOC):

Sanding and grinding dust may be harmful if inhaled. Sanding and grinding dust may form combustible concentrations in air. Emits toxic fumes when heated.

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.

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- 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.
 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.

Section -3. COMPOSITION / INFORMATION ON INGREDIENTS

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

% BY WEIGHT IN PRODUCT-	HAZARDOUS INGREDIENT	CAS#-
<p><5%</p> <p>FLAMMABLE LIQUID AND VAPOR - H226 CAUSES SERIOUS EYE IRRITATION - H319 CAUSES SKIN IRRITATION - H315 MAY CAUSE RESPIRATORY IRRITATION - H335 HARMFUL IF INHALED - H332 MAY CAUSE CANCER - H350</p>	<p>Polysilicic Acid, Ethyl Ester</p>	<p>11099-06-2</p>
<p><1%</p> <p>FLAMMABLE LIQUID AND VAPOR - H226 SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD - H361 MAY CAUSE LONG LASTING HARMFUL EFFECTS TO AQUATIC LIFE - H413</p>	<p>Octamethylcyclotetrasiloxane</p>	<p>556-67-2</p>

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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.

Emits toxic fumes when heated.

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

- Carbon Dioxide
- Carbon Monoxide
- Toxic Fumes of Ethanol
- Airborne Solids
- Toxic Fumes of Silicone Dioxide
- Formaldehyde
- Irritating Fumes
- Silicone Oxides
- Unidentified Organic Compounds
- Toxic Fumes
- Smoke
- Phenolic Compounds
- Toxic Fumes of Organic Acid Vapors
- Other Hazardous Materials
- Carbon Oxides
- Sulfur 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.

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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.

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)

OSHA	PRODUCT	ACGIH
	Amorphous Silicate-Based Glass	
15 mg/m ³ Nuisance Dust 5 mg/m ³ Respirable Fraction		10 mg/m ³ Nuisance Dust 5 mg/m ³ Respirable Fraction
	Octamethylcyclotetrasiloxane Recommended Exposure Limit - (REL) - 5ppm	
	Synthetic Amorphous Silica	
15 mg/m ³ Total Dust 5 mg/m ³ Respirable		10 mg/m ³ Inhalable 3 mg/m ³ Respirable
	Soda Lime Borosilicate Glass Manufacturer Determined - TWA - (As Dust) - 10 mg/m ³	

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 ° F (20 ° C) Liquid
- Flash point: 200 ° F (93 ° C) Method: TCC
- Specific gravity at: 68 ° F (20 ° C) 0.64
- Vapor Density: N/A
- Lower Explosive Limit (% vol.): N/A
- Upper Explosive Limit (% vol.): N/A
- Miscibility in water at 20 ° C: NOT SOLUBLE
- Ph : 8.5
- Volatile by VOLUME: 0.5%
- Vapor pressure at: 68 ° F (20 ° C) N/A
- Color: WHITE
- Appearance: PASTE
- Odor: SLIGHT 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 :

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

- Carbon Dioxide
- Carbon Monoxide
- Toxic Fumes of Ethanol
- Airborne Solids
- Toxic Fumes of Silicone Dioxide
- Formaldehyde
- Irritating Fumes
- Silicone Oxides
- Unidentified Organic Compounds
- Toxic Fumes
- Smoke
- Phenolic Compounds
- Toxic Fumes of Organic Acid Vapors
- Other Hazardous Materials
- Carbon Oxides
- Sulfur 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 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

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ACUTE TOXICITY:

ENDPOINT	SPECIES	PRODUCT	DOSE	EXPOSURE
		Polysilicic Acid, Ethyl Ester		
LD50 ORAL	Rat		>2000 mg/kg	-
LD50 Dermal	Rat		>4450 mg/kg	-
		Octamethylcyclotetrasiloxane		
LD50 ORAL	Rat		>2,000 mg/kg	-
LC50 Inhalation	Rat		36000 mg/m ³	4 Hours
LD50 Dermal	Rabbit		>4640 mg/m ³	-

SPECIFIC TARGET ORGAN TOXICITY-STOT (SINGLE EXPOSURE)

Polysilicic Acid, Ethyl Ester	Category 3	Respiratory Tract Irritation
Octamethylcyclotetrasiloxane		No Data Available

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

MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS - H304

HARMFUL IF SWALLOWED - H302

HARMFUL IF INHALED - H332

SUSPECTED OF CAUSING CANCER - H351

CAUSES SKIN IRRITATION - H315

CAUSES SERIOUS EYE IRRITATION - H319

MAY CAUSE AN ALLERGIC SKIN REACTION - H317

MAY CAUSE DROWSINESS OR DIZZINESS - H336

MAY CAUSE RESPIRATORY IRRITATION - H335

MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE - H373

ASPIRATION HAZARD :

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.

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Toxicity :

Product / Ingredient	Result	Dosage	Species	Exposure
Polysilicic Acid, Ethyl Ester	EC50	>193 mg/l	Daphnia	48 Hours
Octamethylcyclotetrasiloxane	LC50	200 mg/l	Leuciscus Idus	96 Hours
	EC50	>0.015 mg/l	Daphnia Magna	48 Hours
	EC50	>0.022 mg/l	Green Algae	96 Hours

Bioaccumulative Potential :

Product / Ingredient	LogP(ow)	BCF	Exposure	Potential
Octamethylcyclotetrasiloxane	-	12.40	28 Days	Low

PERSISTANCE AND DEGRADABILITY:

TEST	PRODUCT PERIOD	RESULT
Octamethylcyclotetrasiloxane	29 Days	3.7%

AQUATIC HALF LIFE	PRODUCT PHOTOLYSIS	BIODEGRADABILITY
No Data Available		

Mobility in Soil : Not Available

13. DISPOSAL CONSIDERATIONS

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

React with curing agent and dispose of as hazardous waste per Federal, State and local regulations. Recommended incineration or land fill.

Empty containers and/or liners may contain material residue. Empty contaminated packagings thoroughly. Dispose in accordance with all Federal, State, and local health and environmental regulations.

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

14. TRANSPORT INFORMATION

DOT: Not regulated
UN Number: Not regulated
IATA: Not regulated
IMDG/IMO: Not regulated
NMFC: 4620 SUB.5 – CL.60
Schedule B # 3506.91.0000

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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)**

To the best of our knowledge, this material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313

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****Octamethylcyclotetrasiloxane -****Fire Hazard, Chronic (Delayed) Health Hazard****TSCA INVENTORY:****Polysilicic Acid, Ethyl Ester**

11099-06-2

US Regulations State**Polysilicic Acid, Ethyl Ester****TEXAS - Effects Screening Levels -Long Term****TEXAS - Effects Screening Levels - Short Term****Dimethyl Siloxane, Trimethylsiloxy-Terminated****Pennsylvania (RTK) - Listed****Octamethylcyclotetrasiloxane****Massachusetts (RTK) - Listed****Pennsylvania (RTK) - Listed****New Jersey (RTK) - Listed**

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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 D - Poisonous and Infectious materials Division 2: Materials Causing Other Toxic Effects D2A D2B
Polysilicic Acid, Ethyl Ester
Octamethylcyclotetrasiloxane

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.

16. OTHER INFORMATION

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0

Customer and / or end user is responsible for determining PPE

HMIS

Preparer: Flamemaster / Compliance
Rev-A 4/20/2015
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:

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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

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