

13576 Desmond Street  
Pacoima, CA 91331 - USA

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

1.1. Product Identifier: CS-1900 Part B  
- Product Name: Firewall Catalyst  
- Product reference: CS-1900 Part B

**1.2. Product Use:**

Firewall Catalyst

**1.3. Manufacturer's Name:**

**CAGE Code: 14439**  
Flamemaster Corp.  
Chem Seal Division  
13576 Desmond Street  
Pacoima, CA 91333 – USA

**1.3.1 Suppliers Name ( if not manufacturer )**

**Technical Contact:**

Flamemaster Corp.  
Tel: 818-890-1401  
Fax: 818-890-6001  
[www.flamemaster.com](http://www.flamemaster.com)

**1.4. Emergency Telephone:**

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

**Specification**

**MIL-S-38249**

**CATALYST PART B**

NSN:	8030-00-783-8886 6OZ cartridge(3.5)	8030-00-783-8898 1/2 pint kit(6oz)	8030-00-723-5345 pint kit(12oz)	8030-01-033-3485 gallon kit(96oz)	8030-01-364-7359 2 1/2 oz cartridge
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**Section -2. HAZARD ( S ) IDENTIFICATION**

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**OSHA / HCS STATUS:**

This Material is Considered Hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

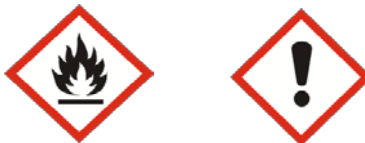
**Classification of the Substance or Mixture:**

FLAMMABLE LIQUIDS - (CATEGORY 2)

SKIN CORROSION / IRRITATION - (CATEGORY 2)

SERIOUS EYE DAMAGE / EYE IRRITATION - (CATEGORY 2A)

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

**GHS LABEL ELEMENTS****HAZARD PICTOGRAMS :**

HIGHLY FLAMMABLE LIQUID AND VAPOR - H225

CAUSES SKIN IRRITATION - H315

CAUSES SERIOUS EYE IRRITATION - H319

MAY CAUSE DROWSINESS OR DIZZINESS - H336

**SIGNAL WORD : DANGER**

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

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**Chemical family :** Mixture of organic compounds

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

**2-PROPANOL**

OSHA HAZARDS: FLAMMABLE LIQUIDS, TARGET ORGAN EFFECT, IRRITANT

OTHER HAZARDS THAT DO NOT RESULT IN CLASSIFICATION: MAY FORM EXPLOSIVE PEROXIDES

GHS CLASSIFICATION: 2-PROPANOL

FLAMMABLE LIQUIDS (CATEGORY 2)

SKIN IRRITATION (CATEGORY 3)

EYE IRRITATION (CATEGORY 2A)

SPECIFIC TARGET ORGAN TOXICITY-SINGLE EXPOSURE (CATEGORY 3)

**N,N'-BIS[3-(TRIMETHOXYSILYL)PROPYL]ETHYLENEDIAMINE**

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS)

SKIN IRRITATION (CATEGORY 2)

EYE IRRITATION (CATEGORY 2A)

STOT-SINGLE EXPOSURE (CATEGORY 1)

**N-(2-AMINOETHYL)-3-AMINOPROPYLTRIMETHOXYSILANE**

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

FLAMMABLE LIQUIDS (CATEGORY 4) H227

SKIN IRRITATION (CATEGORY 2) H315

SERIOUS EYE DAMAGE (CATEGORY 1) H318

SKIN SENSITISATION (CATEGORY 1) H317

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SUBSTANCE		H&P Statements	CAS	EINECS/ELINCS
2-Propanal (Isopropyl Alcohol)		H225,H316,H319,H336,P210, P261,P305+P351+P338	67-63-0	200-661-7
<=70%	N,N'-BIS[3-(TRIMETHOXYSILYL)PROPYL]ETHYLENEDIAMINE			
<40%	H315,H319,H335,P210,P233,P240 P241,P242,P243,P260,P264, P270,P271,P280,P301+P310, P303+P361+P353,P304+P340, P305+P351+P338,P307+P311 P322,P330,P332+P313,P337+ P313,P361,P370+P378,P403+ P233,P403+P235,P405,P501		68845-16-9	272-453-4
<40%	N-(2-AMINOETHYL)-3-AMINOPROPYLTRIMETHOXYSILANE			
	H227,H315,H317,H318,P210, P261,P264,P272,P280,P302+ P352,P305+P351+P338,P310, P321,P333+P313,P362,P370+ P378,P403+P235,P501		1760-24-3	217-164-6

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

**General:** When in doubt or symptoms persist, seek medical attention. Have Material 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. Never give anything by mouth to an unconscious person.

#### Section -5. FIRE-FIGHTING MEASURES

##### Extinguishing agents

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

**Agents to avoid:** None known

##### Attention

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.

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**Section -6. ACCIDENTAL RELEASE MEASURES**

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Eliminate sources of ignition, ventilate the area. Avoid breathing vapors by using appropriate respiratory protective equipment. Refer to protective measures listed in sections 7 & 8.

Collect spill with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in a suitable container for disposal in accordance with local regulations (see section 13). Do not allow to enter drains or watercourses.

Clean-up with a detergent/ water mix ; avoid use of aromatic solvents. If the product enters drains or watercourses, inform authority with jurisdiction in accordance with state / local regulations.

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**Section -7. HANDLING AND STORAGE**

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**7.1 Handling:**

No smoking, eating and drinking during handling.

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

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

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

Preparation may charge electrostatically; always use grounding/ bonding/ earthing leads when transferring contents of containers. Operators should wear antistatic footwear and clothing, and floors should be electrically conductive. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapor in air, and avoid vapor concentration higher than the Occupational Exposure Limits.

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

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**7.2 Storage:**

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

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**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

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**8.1 Engineering measures:**

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

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

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## 8.2 Exposure limits

### Work place exposure limits ( 8 hour )

Substance	OSHA	ACGIH TLV
2-Propanal (Isopropyl Alcohol) *	400 ppm	400 ppm
N,N'-BIS[3-(TRIMETHOXSILYL)PROPYL]ETHYLENEDIAMINE *	Not Established	Not Established
N-(2-AMINOETHYL)-3-AMINOPROPYLTRIMETHOXSILANE *	Not Established	Not Established
* 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

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| <ul style="list-style-type: none"><li>• Physical state at: 68 ° F (20 ° C) Liquid</li><li>• Flash point:&gt; 54 ° F (12.2 ° C) Method: TCC</li><li>• Specific gravity at: 68 ° F (20 ° C) 1.01 g/cm<sup>3</sup></li><li>• Vapor Density: 2.1</li><li>• Lower Explosive Limit (% vol.): 2.0</li><li>• Upper Explosive Limit (% vol.): 12.0</li><li>• Miscibility in water at 20 ° C: Moderate</li></ul> | <ul style="list-style-type: none"><li>• Ph : 8.5</li><li>• % Volatile by Volume:80</li><li>• Vapor pressure at: 68 ° F (20 ° C) 30 mm Hg</li><li>• Color: Clear or Amber</li><li>• Appearance: liquid</li><li>• Odor: Amine odor</li><li>• Boiling Point: 180 ° F</li></ul> |
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## 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, Carbon, Sulfur
- Sulfur oxides

## 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.

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**12. ECOLOGICAL INFORMATION**

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

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**13. DISPOSAL CONSIDERATIONS**

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

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**14. TRANSPORT INFORMATION**

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**DOT: § 172.101 HAZARDOUS MATERIALS TABLE****UN Number:** 1133**Proper Shipping Name:** Adhesives**Labels:** Flammable Liquid**Hazard Class:** 3 Subclass: NO**Packaging Group:** II**Limited Quantity:** Passenger aircraft: 1 Liter(.26 Gallons)**Cargo aircraft only:** 60 Liter (15.85 Gallons)**Vessel stowage:** A**ERG:** 128**NMFC:** 4620 SUB.5 – CL.60**Schedule B #** 3506.91.0000**IATA:****UN Number:** 1133**Proper Shipping Name:** Adhesives**Labels:** Flammable Liquid**Hazard Class:** 3 Subclass: NO**Packaging Group:** II**Passenger Air Packing Instruction :** 353**Passenger aircraft:** 5 Liter (1.32 gallon)**Cargo Air Packing Instruction :** 364**Cargo aircraft only:** 60 Liter (15.85 gallon)**IMDG:****UN Number:** 1133**Proper Shipping Name:** Adhesives**Label:** 3**Hazard Class:** 3 Subclass: NO**Packaging Group:** II**EMS No:** F, E – S, D

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**15. REGULATORY INFORMATION**

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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) <b>Chemical Name :</b>	CAS No	Weight %	Threshold limit (Reporting Value)
2-Propanal	67-63-0	<70%	Unknown
N,N'-BIS[3-(TRIMETHOXSILYL)PROPYL]ETHYLENEDIAMINE	68845-16-9	<40%	Unknown
N-(2-AMINOETHYL)-3-AMINOPROPYLTRIMETHOXSILANE	1760-24-3	<40%	Unknown

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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**

	2-Propanal	67-63-0	<70%	
California Proposition 65 (Developmental – Female)				>= 1.0%
Massachusetts				>= 1.0%
New Jersey				>= 1.0%
Pennsylvania				>= 1.0%
Rhode Island				>= 1.0%
<b>N,N'-BIS[3-(TRIMETHOXSILYL)PROPYL]ETHYLENEDIAMINE</b>				
		68845-16-9	<40%	
California Proposition 65 (Developmental – Female)				>= 1.0%
Massachusetts				>= 1.0%
New Jersey				>= 1.0%
Pennsylvania				>= 1.0%
Rhode Island				>= 1.0%
<b>N-(2-AMINOETHYL)-3-AMINOPROPYLTRIMETHOXSILANE</b>				
		1760-24-3	<40%	
California Proposition 65 (Developmental – Female)				>= 1.0%
Massachusetts				>= 1.0%
New Jersey				>= 1.0%
Pennsylvania				>= 1.0%
Rhode Island				>= 1.0%

**Canada**



**Class B – Flammable  
2-propanal**

N,N'-BIS[3-(TRIMETHOXSILYL)PROPYL]ETHYLENEDIAMINE

N-(2-AMINOETHYL)-3-AMINOPROPYLTRIMETHOXSILANE



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

N,N'-BIS[3-(TRIMETHOXSILYL)PROPYL]ETHYLENEDIAMINE

N-(2-AMINOETHYL)-3-AMINOPROPYLTRIMETHOXSILANE

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): 2-Propanal cas#67-63-0,

N-(2-AMINOETHYL)-3-AMINOPROPYLTRIMETHOXSILANE-

CAS# 1760-24-3

N,N'-BIS[3-(TRIMETHOXSILYL)PROPYL]ETHYLENEDIAMINE-

CAS# 68845-16-9

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**16. OTHER INFORMATION**

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

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		

**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**