



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

SAFETY DATA SHEET
 APRIL 26, 2017

File: CS3213BA GSA 07-10
CORROSION INHIBITING
SEALANT-CATALYST

Section -1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1. Product Identifier: CS-3213 Part B Class A-2
 - Product Name: Corrosion Inhibiting Sealant / Catalyst Part B
 - Product reference: CS-3213-B

1.2. Product Use:
 - Corrosion Inhibiting 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 **STM 40-111/MIL-PRF-81733** **CATALYST PART B** **CLASS A-2**

NSN:	8030-00-762-8807 CS 3213 A-2 QUART				
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Section -2. HAZARD (S) IDENTIFICATION

ASPIRATION HAZARD - (CATEGORY 1)

ACUTE TOXICITY (ORAL) - CATEGORY 4

ACUTE TOXICITY (INHALATION) - CATEGORY 4

SKIN CORROSION / IRRITATION - CATEGORY 1

SERIOUS EYE DAMAGE / EYE IRRITATION - CATEGORY 1

SKIN SENSITIZATION - CATEGORY 1

GERM CELL MUTAGENICITY - CATEGORY 1B

CARCINOGENICITY - CATEGORY 1A

TOXIC TO REPRODUCTION (FERTILITY) - CATEGORY 2

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - STOT SE - (RESPIRATORY TRACT IRRITATION) - CATEGORY 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - STOT RE - CATEGORY 2

AQUATIC (ACUTE) - CATEGORY 1

AQUATIC (CHRONIC) - CATEGORY 1

OSHA / HCS STATUS : THIS MATERIAL IS CONSIDERED HAZARDOUS BY THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

Human and Environmental Hazards:

HAZARD STATEMENTS:

May Be Fatal if Swallowed and Enters Airways

Harmful by Inhalation and / or Swallowing

CAUSES SEVERE SKIN BURNS AND EYE DAMAGE

Causes Skin Irritation

May Cause An Allergic Skin Reaction

May Cause Genetic Defects

Suspected of Causing Cancer

Suspected of Damaging Fertility

May Cause Respiratory Irritation

May Cause Damage to Organs Through Prolonged or Repeated Exposure

VERY TOXIC TO AQUATIC LIFE

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.

Other Hazards that do not result in classification:

Prolonged or repeated exposure may dry skin and / or cause irritation

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).

CHEMICAL NAME: MANGANESE DIOXIDE	CAS# 1313-13-9	EC# 215-202-6	<65% 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	<15% by weight
NOT CLASSIFIED			

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CHEMICAL NAME: MAGNESIUM CHROMATE Cas# 13423-61-5 EC# 236-540-0 <40% by weight
ACUTE TOXICITY, ORAL (CATEGORY 3), H301
CARCINOGEN, (CATEGORY 1A) H350I
CARCINOGEN, (CATEGORY 1A) H350
SKIN CORROSIVE, (CATEGORY 1A) H314
EYE DAMAGE, (CATEGORY 1) H314
AQUATIC ACUTE, (CATEGORY 1) H400
AQUATIC CHRONIC, (CATEGORY 1) H410

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: 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

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.

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

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.

Hazardous decomposition products include: Carbon Dioxide, Carbon Monoxide, Nitrogen Oxides, Sulfur Oxides
Metal Oxide / Oxides, Toxic Fumes

If exposed to hazardous decomposition products, symptoms may be delayed. Patient may require medical surveillance for up to 48 hours.

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

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 / OSHA PEL
Manganese Dioxide	TWA: 0.1mg/m ³ (as Mn) 8 hours (Inhalable Fraction) ACGIH TWA: 0.02mg/m ³ (as Mn) 8 hours (Respirable Fraction) ACGIH CEIL: 5mg/m ³ OSHA PEL
Terphenyl, Hydrogenated	TWA: 4.9 mg/m ³ 8 hours - ACGIH TWA: 0.5 ppm 8 hours - ACGIH
Zeolites	TWA: 1mg/m ³ 8 hours (Respirable Fraction) - ACGIH
Terphenyl	C: 5mg/m ³ - ACGIH C: 0.53 ppm - ACGIH CEIL: 9 mg/m ³ - OSHA PEL CEIL : 1 ppm - OSHA PEL
Magnesium Chromate	TWA: 0.05 mg/m ³ (measured as Cr) 8 hours (Soluble) - ACGIH CEIL : 1 mg/10 m ³ OSHA PEL Z2 TWA : 0.005mg/m ³ (asCr) 8 hours - OSHA PEL

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) 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
 - Material Supports Combustion. : Yes
- Ph : N/A
 - % VOLATILE BY VOLUME - N/A
 - Vapor pressure at: 68 ° F (20 ° C) N/A
 - Color: BLACK
 - 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
- Sulfur oxides
- Carbon Dioxide
- Oxides of nitrogen
- Metal Oxide / Oxides
- Manganese Compounds
- Smoke
- Toxic Fumes

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
Manganese Dioxide	LD50 ORAL	Rat	3478 mg/kg	-
Terphenyl,Hydrogenated	LD50 ORAL	Rat	17500 mg/kg	-
Zeolites	LD50 ORAL	Rat	>5 g/kg	-
Terphenyl	LD50 Oral	Rat	>1400 mg/kg	-
1, 3-Diphenylguanidine	LD50 Oral	Rat	323mg/kg	-

CARCINOGENICITY:

INGREDIENT	IARC	OSHA	NTP
Magnesium Chromate	1	+	Known to be a human carcinogen
Zeolites	3	-	-

Specific Target Organ Toxicity (STOT)- Single Exposure

Magnesium Chromate - (Category 3)

1,3-Diphenylguanidine - (Category 3)

Zeolites - (Category 3)

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

Manganese Dioxide - (Category 2)

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Potential chronic health effects include the following:

May be Fatal if Swallowed and Enters Airways
Harmful by Inhalation and / or Swallowing
Causes Serious Eye Irritation
Causes Skin Irritation
May Cause An Allergic Skin Reaction
May Cause Genetic Defects
Suspected of Causing Cancer
Suspected of Damaging Fertility
May Cause Respiratory Irritation
May Cause Damage to Organs Through Prolonged or Repeated Exposure
This Product Causes Skin Irritation, Defatting of the Skin, and May Cause an Allergic Reaction.

Target Organs: lungs, skin, central nervous system, blood, kidneys, nervous system, liver, spleen, lymphatic system, cardiovascular system, upper respiratory tract, bone marrow, eye, lens, cornea, nose / sinuses

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.

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.

Bioaccumulative Potential:

Product	LogPow	BCF	Potential
1,3 Diphenylguanidine	1.69	19.95	Low
Bis(piperidinothiocarbonyl) tetrasulfide	2.8	16.98	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 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.

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14. TRANSPORT INFORMATION

DOT: Not regulated

UN Number: Not regulated

IATA: Not regulated

IMDG/IMO: Not regulated

NMFC: 4620 SUB.6 – CL.60

Schedule B # 3506.91.0000

15. REGULATORY INFORMATION

Other EU Regulations:

1,3-Diphenylguanidine - Reproductive (Category 2) H361f (Fertility)

SARA 311/312

Classification: Immediate (acute) health hazard

Delayed (chronic) health hazard

Composition of Ingredients :

Manganese Dioxide : Immediate (acute) health hazard

Delayed (chronic) health hazard

Magnesium Chromate : Fire Hazard

Immediate (acute) health hazard

Delayed (chronic) health hazard

Zeolites : Immediate (acute) health hazard

Polyphenyls, quater and higher : Immediate (acute) 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

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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)
	Manganese Dioxide	1313-13-9	<65%	Unknown
	Magnesium chromate	13423-61-5	<40%	Unknown

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

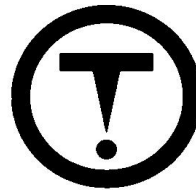
All remaining Constituents are non-hazardous per FED-STD-313 All Constituents are listed in TSCA inventory; complete mixture is excluded Per TSCA Par. 710.4 (d) 95 (6) (7) Constituents are not listed in TSCA 12b CORR. LIST

US Regulations State

California Proposition 65 (Developmental – Female)	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 Proposition 65 (Developmental – Female)	MAGNESIUM CHROMATE	13423-61-5	<40%	>= 1.0%
Massachusetts	MAGNESIUM CHROMATE	13423-61-5	<40%	>= 1.0%
New Jersey	MAGNESIUM CHROMATE	13423-61-5	<40%	>= 1.0%
Pennsylvania	MAGNESIUM CHROMATE	13423-61-5	<40%	>= 1.0%
Rhode Island	MAGNESIUM CHROMATE	13423-61-5	<40%	>= 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.



materials Division 2: Materials Causing Other Toxic Effects:
Manganese Dioxide CAS#1313-13-9
Magnesium Chromate Cas#13423-61-5

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):Manganese Dioxide cas#1313-13-9 Magnesium Chromate Cas# 13423-61-5

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Section 16 Other Information

HEALTH	3	HEALTH	3
FLAMMABILITY	1	FLAMMABILITY	1
REACTIVITY	1	REACTIVITY	1

Customers and/or end users are responsible for determining PPE codes.

NFPA**HMIS**

Preparer-Flamemaster/Compliance
Rev A JUNE 2015
Supercedes(Conversion)

Revision Notes: A

Conversion to ANSI format

Containers: Plastic Jars, Metal Cans, Cartridge Kits

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