

# Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard. 29 CFR 1910.1200 Standard must be consulted for specific requirements

HMIS



FED-STD-313  
LATEST REV.

|  |  |  |  |
|--|--|--|--|
| OMB registration no.   |  | Type of data sheet<br><input type="checkbox"/> NEW <input checked="" type="checkbox"/> Revised               |  |
| <b>SECTION I GENERAL INFORMATION</b>   |  | (No. of Revised, Sec. Supersede 2-5-96 )   |  |
| Commercial ID (as on label and list)<br><b>CS 3100 TYPE II CLASS 2 (PART A)</b>                                      |  | Govt. Contract or Order No.  |  |
| Manufacturer's Name<br><b>FLAMEMASTER CORP.</b>  |  | National Stock No./ACN/LSN/SIN   |  |
| Mfgs. Address (No. Street, City, State, Zip)<br><b>CHEM SEAL DIV.<br/>11120 SHERMAN WAY<br/>SUN VALLEY, CA 91352</b> |  | Part No., Product &/or Trade Name<br><b>CS 3100 TYPE II CLASS 2</b>  |  |
| Emergency Telephone Number<br><b>1-800-424-9300 CHEM TREC</b>  |  | Information Telephone Number<br><b>1-818-982-1650</b>  |  |
| Date Prepared<br><b>JANUARY 13, 1999</b>   |  | Hazardous Items<br><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO MARINE POLLUTANT - NO |  |
| Migr. CAGE code<br><b>14439</b>  | Name of Preparer<br><b>HERBERT MOORE</b> | Signature of Preparer  |  |
| NRC License Number<br><b>N/A</b>   | EPA Registration Number<br><b>N/A</b>    | Specification Number<br><b>ML-PRF-8516 Latest Rev.</b>   |  |
| Spec. Type<br><b>II</b>  | Spec. Grade<br><b>N/A</b>                | Spec. Class<br><b>2</b>  |  |

## Section II - Hazardous Ingredients/BARA III INFORMATION\*

| Hazardous Components (Specific Chemical Identify: Common Name(s)) | Other Limits | by wt | OSHA PEL | ACGIH TLV | NIOSH #   | CAS #      |
|---|--------------|-------|----------|-----------|-----------|------------|
| *METHYL BENZENE (TOLUENE)   |              | 2     | 200 PPM  | 100 PPM   | XS5250000 | 108-88-3   |
| LIQUID POLYSULFIDE POLYMER (NONE)                                 |              | 60    | NOT EST. | NOT EST.  | -----     | 68611-50-7 |

PER 29 CFR 1910.1200)

ALL REMAINING CONSTITUENTS ARE NON-HAZARDOUS PER FED STD 313. ALL CONSTITUENTS ARE LISTED IN TSCA INVENTORY. COMPLETE MIXTURE IS EXCLUDED PER TSCA PARA 710.4 (d)(95)(6)(7). CONSTITUENTS ARE NOT LISTED IN TSCA 125 CORR. LIST.

\* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

## Section III - Physical/Chemical Characteristics

|   |  |  |                                      |
|---|--|--|--------------------------------------|
| Boiling Point<br><b>231 °F.</b>                             | Specific Gravity (H <sub>2</sub> O = 1)<br><b>1.68</b> | Autoignition Temperature<br><b>N/A</b>                   | Decomposition Temp.<br><b>N/A</b>    |
| Vapor Pressure (mm Hg.)<br><b>22</b>                        | pH<br><b>7.2</b>                                       | % Volatile by Volume<br><b>5</b>                         | Magnetism (Milligauss)<br><b>N/A</b> |
| Vapor Density (AIR = 1)<br><b>3.2</b>                       | Evaporation Rate (Butyl Acetate = 1)<br><b>2.0</b>     | Viscosity<br><b>600 POISES</b>                           | Corrosion Rate<br><b>N/A</b>         |
| Solubility in Water<br><b>INSOLUBLE</b>                     | Melting Point<br><b>LIQUID AT ROOM TEMPERATURE</b>     | Temp:  | Mat. Ref:                            |
| Appearance and Odor<br><b>WHITE PASTE, POLYSULFIDE ODOR</b> |  | Volatile Organic Compound (VOC)<br><b>45 grams/LITER</b> |                                      |

## Section IV - Fire and Explosion Hazard Data

|  |                  |                   |                   |
|--|------------------|-------------------|-------------------|
| Flash Point (Method Used)<br><b>54 °C., 130 °F., TOC</b>   | Flammable Limits | LEL<br><b>1.3</b> | UEL<br><b>7.1</b> |
| Extinguishing Media<br><b>FOAM, DRY CHEMICAL, CO<sub>2</sub>, WATER.</b>                                       |                  |                   |                   |
| Special Fire Fighting Procedures<br><b>IN CONFINED AREAS SELF-CONTAINED BREATHING APPRATUS SHOULD BE WORN.</b> |                  |                   |                   |

## Unusual Fire and Explosion Hazards

VAPORS ARE HEAVIER THAN AIR AND CAN TRAVEL TO SOURCES OF IGNITION.

## Section V - Reactivity Data

|   |                |                                  |                    |
|---|----------------|----------------------------------|--------------------|
| Stability   | Unstable       | Conditions to Avoid              | Neutralizing Agent |
|   | Stable         | <b>X HIGH HEAT OR OPEN FLAME</b> |                    |
| Incompatibility (Materials to Avoid)<br><b>AVOID STRONG OXIDIZING AGENTS.</b>                       |                |                                  |                    |
| Hazardous Decomposition Products<br><b>SO<sub>2</sub>, CO<sub>2</sub>, H<sub>2</sub>S, SOOT, CO</b> |                |                                  |                    |
| Hazardous Polymerization  | May Occur      | Conditions to Avoid              |                    |
|   | Will Not Occur | <b>X N/A</b>                     |                    |

**Section VI - Health Hazard Data**

Route(s) of Entry: Inhalation? **YES** Skin? **NO** Ingestion? **YES**

Health Hazards (Acute and Chronic) **MAY CAUSE EYE, SKIN AND NOSE IRRITATION, MAY LEAD TO MUSCULAR WEAKNESS AND DIZZINESS. LONG TERM EXPOSURE MAY LEAD TO DERMATITIS, LIVER AND KIDNEY DAMAGE.**

Carcinogenicity: NTP? **NO** IARC Monographs? **NO** OSHA Regulated? **NO**

Signs and Symptoms of Exposure **EYE, NOSE OR SKIN IRRITATION. HEADACHE AND NAUSEA WITH IMPAIRED CO-ORDINATION.**

Medical Conditions Generally Aggravated by Exposure **PRE-EXISTING SKIN DISORDERS, RESPIRATORY TRACT; LIVER OR KIDNEY DISEASE.**

Emergency and First Aid Procedures **EYE CONTACT - FLUSH IMMEDIATELY WITH LARGE AMOUNT OF WATER. SKIN - WASH WITH MILD SOAP AND WATER**

**Section VII - Precautions for Safe Handling and Use**

Steps to Be Taken In Case Material is Released or Spilled **REMOVE IGNITION SOURCES. TRANSFER TO SAFETY CONTAINER. CLEAN UP REMAINDER WITH SAND OR SWEEPING COMPOUND. WASH AREA WITH SOAP AND WATER.**

Waste Disposal Method **REACT WITH CURING AGENT AND DISPOSE AS SOLID HAZARDOUS WASTE ACCORDING TO FEDERAL, STATE AND LOCAL REGULATIONS.**

Precautions to Be Taken in Handling and Storing **STORE IN COOL, WELL VENTILATED AREA. KEEP CONTAINERS CLOSED.**

Other Precautions **WASH HANDS BEFORE EATING, DRINKING OR SMOKING, AFTER HANDLING THIS PRODUCT.**

**Section VIII - Control Measures**

Respiratory Protection (Specify Type) **FOR VAPORS ABOVE 200 PPM NEED SELF-CONTAINED BREATHING APPARATUS.**

|             |                      |         |
|-------------|----------------------|---------|
| Ventilation | Local Exhaust        | Special |
|             | <b>HOOD</b>          |         |
|             | Mechanical (General) | Other   |
|             | <b>FAN</b>           |         |

Protective Gloves **RUBBER** Eye Protection **SAFETY GLASSES/FACE SHIELD**

Other Protective Clothing or Equipment **APPROPRIATE TO PREVENT PROLONGED CONTACT WITH SKIN.**

Work/Hygienic Practices **TRAIN PERSONNEL IN SAFE HANDLING OF THIS PRODUCT.**

**Section IX - Transportation**

Applicable Regulations  49 CFR  IMO  IATA  MILITARY AIR (AFR 71-4)

Shipping Name **ADHESIVE CONTAINING FLAMMABLE LIQUID** ID Number **1133** Reposable Quantity **NO**

Hazard Class **3** Labels **NO**

Unit Container **3.5 OZ. IN A 6-OZ PLASTIC CARTRIDGE** Net Explosive Weight **N/A**

DOT Exempt/DOD CCN **YES** Limited Quantity **YES**

Aerosol Propellant(s) **N/A** US Postal Service Regulations **PARA 124.142 HARMFUL MATTER**

Disposal Information **AS IS OR REACT WITH PART B & DISPOSE AS SOLID HAZARDOUS WASTE.**

EPA Hazardous Waste Number/Code **CAD062064746** Hazardous Waste Characteristics **SLUDGE**

Disposal Methods **INCINERATION &/OR LANDFILL PER FEDERAL, STATE & LOCAL REGULATIONS.**

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| OMB registration no.  |  | Type of data sheet<br><input type="checkbox"/> NEW <input checked="" type="checkbox"/> Revised<br>(No. of Revised, Sec. Supersede 2-5-96 ) |  |
| <b>SECTION I GENERAL INFORMATION</b>  |  | Govt. Contract or Order No.  |  |
| Commercial ID (as on label and list)<br>CS 3100 (PART B)  |  | National Stock No./ACN/LSN/SIN   |  |
| Manufacturer's Name<br>FLAMEMASTER CORP.  |  | Part No., Product &/or Trade Name<br>CS 3100 (PART B)  |  |
| Mfgs. Address (No. Street, City, State, Zip)<br>CHEM SEAL DIV.<br>11120 SHERMAN WAY<br>SUN VALLEY, CA 91352 |  | Hazardous Items<br><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO MARINE POLLUTANT - YES                              |  |
| Emergency Telephone Number<br>1-800-424-9300  | Information Telephone Number<br>1-818-982-1650 | Date Prepared<br>JANUARY 13, 1999  |  |
| Migr. CAGE code<br>14439  | Name of Preparer<br>HERBERT MOORE              | Signature of Preparer  |  |
| NRC License Number<br>N/A   | EPA Registration Number<br>N/A                 | Specification Number<br>N/A  |  |
| Spec. Type<br>N/A   | Spec. Grade<br>N/A                             | Spec. Class<br>N/A   |  |

**Section II - Hazardous Ingredients/BSA III INFORMATION\***

| Hazardous Components (Specific Chemical Identity; Common Name(s)) | Other Limits | %         | OSHA PEL              | ACGIH TLV             | NIOSH #   | CAS #     |
|---|--------------|-----------|-----------------------|-----------------------|-----------|-----------|
| **LEAD DIOXIDE  |              | 64% by wt | 0.05mg/M <sup>3</sup> | 0.15mg/M <sup>3</sup> | CG0700000 | 1309-60-0 |
| **LEAD OXIDE  |              | 6% by wt  | 0.05mg/M <sup>3</sup> | 0.15mg/M <sup>3</sup> | CG1750000 | 1317-36-8 |

ALL REMAINING CONSTITUENTS ARE NON-HAZARDOUS PER FED STD 313. ALL CONSTITUENTS ARE LISTED IN TSCA INVENTORY. COMPLETE MIXTURE IS EXCLUDED PER TSCA PARA 710.4 (d)(5)(6)(7). CONSTITUENTS ARE NOT LISTED IN TSCA 128 CORR. LIST.

\*\*THE EXPOSURE LIMITS ARE BASED ON DUST PARTICLES... IN THIS PRODUCT THE LEAD DIOXIDE/OXIDE PARTICLES ARE WETTED OUT THEREFORE AIRBORNE PARTICLES WILL NOT RESULT FROM NORMAL USE.

\* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

**Section III - Physical/Chemical Characteristics**

|   |   |                                 |                               |
|---|---|---------------------------------|-------------------------------|
| Boiling Point<br>VEHICLE 340°C                | Specific Gravity (H <sub>2</sub> O = 1)<br>3.00 | Autoignition Temperature<br>N/A | Decomposition Temp.<br>N/A    |
| Vapor Pressure (mm Hg.)<br>NIL                | pH<br>6.8                                       | % Volatile by Volume<br>3       | Magnetism (Milligauss)<br>N/A |
| Vapor Density (AIR = 1)<br>N/A                | Evaporation Rate (Butyl Acetate = 1)<br>NIL     | Viscosity<br>N/A                | Corrosion Rate<br>N/A         |
| Solubility in Water<br>NEGLECTIBLE            | Melting Point<br>LIQUID AT ROOM TEMPERATURE     | Temp.<br>Mat. Ref:              |                               |
| Appearance and Odor<br>BROWN PASTE, OILY ODOR | Volatile Organic Compound (VOC)<br>1 gm/LITER   |                                 |                               |

**Section IV - Fire and Explosion Hazard Data**

|  |     |                         |     |     |
|--|-----|-------------------------|-----|-----|
| Flash Point (Method Used)<br>>93°C ; >200°F  | TCC | Flammable Limits<br>N/A | LEL | UEL |
| Extinguishing Media<br>FOAM, DRY CHEMICAL, CO <sub>2</sub> , WATER.  |     |                         |     |     |
| Special Fire Fighting Procedures<br>USE A SELF CONTAINED BREATHING APPARATUS WITH FULL FACE PIECE IN CONFINED AREAS.       |     |                         |     |     |
| Unusual Fire and Explosion Hazards<br>FIRE HAZARD EXISTS IF CONTACT WITH OXIDIZABLE MATERIALS AT HIGH TEMPERATURES OCCURS. |     |                         |     |     |

**Section V - Reactivity Data**

|  |                |                     |                    |
|--|----------------|---------------------|--------------------|
| Stability  | Unstable       | Conditions to Avoid | Neutralizing Agent |
|  | Stable         | X HIGH HEAT         |                    |
| Incompatibility (Materials to Avoid)<br>OXIDIZABLE MATERIALS.    |                |                     |                    |
| Hazardous Decomposition Products<br>LEAD OXIDE DUST AND ORGANICS |                |                     |                    |
| Hazardous Polymerization   | May Occur      | Conditions to Avoid |                    |
|  | Will Not Occur | X N/A               |                    |

**Section VI - Health Hazard Data**

Route(s) of Entry: Inhalation? **NO** Skin? **NO** Ingestion? **YES**  
 Health Hazards (Acute and Chronic) **ACUTE - WEAKNESS, STUPOR. CHRONIC - KIDNEY DAMAGE, ANEMIA, REPRODUCTIVE DEFECTS.**

Carcinogenicity: NTP? **NO** IARC Monographs? **NO** OSHA Regulated? **NO**

Signs and Symptoms of Exposure **HEADACHE, MUSCLE AND JOINT PAIN, NEUROMUSCULAR DYSFUNCTION,**

Medical Conditions Generally Aggravated by Exposure **ANEMIA, KIDNEY DISEASE, PREGNANCY.**

Emergency and First Aid Procedures **INGESTION - INDUCE VOMITING, CONSULT A PHYSICIAN AT ONCE.**

**EYE CONTACT - FLUSH WITH LARGE AMOUNT OF WATER AND CONTACT PHYSICIAN.**

**Section VII - Precautions for Safe Handling and Use**

Steps to Be Taken in Case Material is Released or Spilled **SCOOP UP AND TRANSFER TO A SAFETY CONTAINER.**

Waste Disposal Method **RETURN TO SMELTER FOR RECLAMATION OR REACT WITH BASE AND DISPOSE ACCORDING TO FEDERAL, STATE AND LOCAL REGULATIONS.**

Precautions to Be Taken in Handling and Storing **STORE IN A COOL DRY AREA. KEEP CONTAINERS CLOSED.**

Other Precautions **WASH HANDS BEFORE EATING, DRINKING OR SMOKING.**

**Section VIII - Control Measures**

Respiratory Protection (Specify Type) **IF SOOT IS FORMED USE NIOSH APPROVED RESPIRATOR.**

|             |                      |         |
|-------------|----------------------|---------|
| Ventilation | Local Exhaust        | Special |
|             | <b>AIR HOOD</b>      |         |
|             | Mechanical (General) | Other   |
|             | <b>FAN</b>           |         |

Protective Gloves **RUBBER** Eye Protection **SAFETY GLASSES**

Other Protective Clothing or Equipment **APPROPRIATE TO AVOID PROLONGED CONTACT.**

Work/Hygiene Practices **TRAIN PERSONNEL ON THE SAFE HANDLING OF THIS PRODUCT.**

**Section IX - Transportation**

Applicable Regulations  49 CFR  IMO  IATA  MILITARY AIR (AFR 71-4) **SHIPPED AS PART OF KIT.**

Shipping Name \_\_\_\_\_ ID Number \_\_\_\_\_ Reportable Quantity **N/A**

Hazard Class **NON HAZARDOUS** Labels **N/A**

Unit Container **LESS THAN 20 GRAMS IN A PLASTIC BOTTLE** DOT Spec. Container **N/A** Net Explosive Weight **N/A**

DOT Exempt/DOO CCN **N/A** Limited Quantity **SEE PART A**

Aerosol Propellant(s) **N/A** US Postal Service Regulations **PARA 124.142 HARMFUL MATTER**

Disposal Information **SMELTER - AS IS, OR LAND DISPOSAL MIXED WITH PART A, DISPOSE AS HAZARDOUS WASTE.**

EPA Hazardous Waste Number/Code **CAD062064746** Hazardous Waste Characteristics **SLUDGE**

Disposal Methods **SMELTER - AS IS FOR RECLAMATION OR LANDFILL WHEN REACTED WITH PART A & DISPOSE AS HAZARDOUS WASTE, ACCORDING TO FEDERAL, STATE & LOCAL REGULATIONS.**