SAFETY DATA SHEET FORM

Section 1 - PRODUCT and COMPANY IDENTIFICATION

1.1 Product Identifier
Product Name: Gusmer Cellulose Filter Sheet with Natural DE
CSFSC, CSFSF, CSFSP, CSFUF
MTX70
Chemical Name: Mixture
Synonyms: 970-975 Series Filter Sheets, *Crystalline Silica Free (CSF) Filter Sheet Series Filter Media (except CSFXC)
*Based on OSHA mixture exception of <0.1% Crystalline Silica

1.2 Relevant identified uses of the substance or mixture and uses advised against
Intended Product Use: Filtration
Uses Advised Against: To avoid exposure to airborne dust, do not damage or abrade filter material. Do not use damaged sheets.

1.3 Details of the supplier of the safety data sheet
Manufacturer/Distributor: Gusmer Enterprises, Inc.
Postal Address: 81 M Street, Fresno, CA 93721 USA
1401 Ware Street, Waupaca, WI 54981 USA
Telephone Number: (01)(559) 485-2692 [USA] (product info)
(01)(715) 258-5525 [USA] (product info)
Hours of Operation: Monday - Friday 8:00am-5:00pm PST
Monday - Friday 8:00am-5:00pm CST

1.4 Emergency telephone number
Medical Emergency: 911
Chemical Emergency: (800) 424-9300

Section 2 - HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
This product, as shipped, is not regulated as an OSHA hazardous material when used in its normal state and for its intended purpose. Product contains <0.1% Crystalline Silica.

2.2 Label Elements
Hazard Pictogram(s): None
Signal Word: NA
Hazard Statements: NA
Precautionary Statements: NA

2.3 Emergency Overview
Appearance/Odor: White to buff colored filter sheets, generally odorless.
Other Hazards: Warning: Product may form combustible dust concentrations in air during processing. Specifically, in instances where product dust is suspended in air in sufficient concentrations and in proximity to an ignition source. Product as supplied and shipped does not constitute a dust hazard. Users of this product should examine the potential to generate dusts during handling and processing and related combustibility hazards and controls.

The primary health hazard posed by this product is thought to be due to exposure to cellulose dusts (reference "Section 8" below). Cellulose dust may aggravate pre-existing respiratory conditions or allergies.

Section 3 - COMPOSITION / INFORMATION on INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>Common Name &amp; Synonyms</th>
<th>Percentage</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellulose Pulp</td>
<td>Kraft Pulp, Cotton Linter Pulp</td>
<td>40-60%</td>
<td>65996-61-4</td>
</tr>
<tr>
<td>Diatomaceous Earth, Natural</td>
<td>Kieselguhr, DE</td>
<td>40-60%</td>
<td>61790-53-2</td>
</tr>
<tr>
<td>FDA Approved resin binders and additives</td>
<td></td>
<td>&lt; 5%</td>
<td>NA</td>
</tr>
</tbody>
</table>

Section 4 - FIRST AID MEASURES

4.1 Description of the first aid measures
Eye Contact: Dust may mechanically irritate the eyes, resulting in redness or watering. Treat dust in eye as foreign object. Flush with water to remove dust particles. Get medical help if irritation persists.
Skin Contact: Not anticipated to be irritating for product in purchased form, wash with mild soap and water.
Inhalation: Excessive dust concentrations may cause unpleasant obstruction in the nasal passages. Remove to fresh air. Get medical help if persistent irritation, severe coughing or breathing difficulty occurs.
Ingestion: Not applicable for product in purchased form.

4.2 Most important symptoms and effects, both acute and delayed
Eye Contact: Cellulose dust can cause eye irritation
Skin Contact: Possible irritation.
Inhalation: May cause unpleasant obstruction in the nasal passages.
Ingestion: Not applicable for product in purchased form.
Chronic Effects: Not applicable

4.3 Indication of any immediate medical attention and special treatment needed
Treatment: No special advice, treat symptomatically.
Section 5 - FIREFIGHTING MEASURES

5.1 Extinguishing Media
Suitable Extinguishing Media: Water or other extinguishing agents appropriate for fighting surrounding fires.

5.2 Special hazards arising from the substance or mixture
Products of combustion include carbon monoxide, carbon dioxide and fine particulate in the form of smoke.

5.3 Advice for firefighters
As in any fire, wear NIOSH-approved self contained breathing apparatus and appropriate protective clothing.

Product as supplied and shipped is highly unlikely to release sufficient cellulose dust to constitute a combustible dust explosion hazard. Depending on airborne concentration, moisture content, particle diameter, surface area and exposure to an ignition source, airborne cellulose dust may ignite and burn with explosive force in a contained area. Cellulose dust may similarly deflagrate (combustion without detonation like a supersonic explosion) if ignited in an open or loosely contained area. Cellulose dust explosibility ($K_v$ dry $>$200 and <300 bar m/s). Caution should be taken in the processing, shipping, handling and use of these materials, particularly if they are in a dry state and dust is produced. Reference NFPA standards 654, 69 and the NFPA Fire Protection Handbook for guidance.

$K_v$, the maximum rate of pressure rise is used to calculate the $K_v$ value; an internationally recognized index used to classify dust explosibility.

Section 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Sweep or vacuum up for recovery and disposal. Avoid creating dusty conditions whenever feasible. Maintain good housekeeping to avoid accumulation of cellulose dust on exposed surfaces. Use NIOSH approved filtering face piece respirator ("dust mask") and goggles where ventilation is not possible and exposure limits may be exceeded or for additional worker comfort.

Other precautions: Minimize compressed air blowdown or other practices that generate high dust levels.

6.2 Environmental precautions
None, discharge in accordance with federal, state and local laws.

6.3 Methods and materials for containment and cleaning up
If large amounts of dust are generated, collect with vacuum or suppress with water spray and sweep up.

See Section 8 for appropriate personal protective equipment.

Section 7 - Handling and Storage

7.1 Precautions for safe handling
Avoid generating excessive dust. If dust levels are suspected to be over PEL, wear a NIOSH approved N95 or greater respirator. Protect from excessive moisture. Maintain good housekeeping practices. See Section 8 for more information

7.2 Conditions for safe storage, including any incompatibilities
Store in cool, dry place away from open flame and other sources of ignition.

See Section 8 for OSHA permissible exposure limit(s)

Section 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA PEL1</th>
<th>ACGIH</th>
<th>NIOSH REL2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellulose ($C_n$H$<em>{2n}$O$</em>{2n}$)</td>
<td>PEL-TWA 15 mg/m$^3$ Total Dust (PNOR)</td>
<td>Not Established</td>
<td>REL-TWA 10 mg/m$^3$ Total Dust</td>
</tr>
<tr>
<td>Diatomaceous Earth, Natural</td>
<td>PEL-TWA 5 mg/m$^3$ Respirable Dust (PNOR)</td>
<td>Not Established</td>
<td>REL-TWA 5 mg/m$^3$ Respirable Dust</td>
</tr>
<tr>
<td></td>
<td>TWA Total Dust (80 mg/m$^3$)</td>
<td>Not Established</td>
<td>TWA Total Dust</td>
</tr>
<tr>
<td></td>
<td>($%$SiO$_2$)</td>
<td>Not Established</td>
<td>($%$SiO$_2$)</td>
</tr>
</tbody>
</table>

Not Established

Notes: 1. OSHA particulate not otherwise regulated (PNOR)

8.2 Exposure controls

Engineering Controls: If necessary use ventilation system to keep airborne dust concentration below permissible exposure limits. Ventilation to control dust should be considered where potential explosive concentrations and ignition sources are present. The design and operation of any exhaust system should consider the possibility of explosive concentrations of cellulose dust within the system.

Ensure that exhaust ventilation and material transport systems involved in handling this product contain explosion relief vents or suppression systems designed and operated in accordance with applicable standards if the operating conditions justify their use.

Respiratory Protection: If dust levels are suspected to be over PEL, wear a NIOSH approved N95 or greater respirator.

Eye Protection: ANSI Z87+ approved dust goggles or safety glasses, if necessary, to avoid eye irritation.

Skin Protection: Cover skin with clothing and/or gloves if skin dryness or irritation occurs.

General Hygiene: Maintain good housekeeping practices, wash hands after handling, avoid direct eye contact. Clean up areas where cellulose dust settles to avoid excessive accumulation of this combustible material. Minimize compressed air blowdown or other practices that generate high airborne-dust concentrations.
Section 9 - PHYSICAL and CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- **Physical State:** Solid
- **Color:** White to buff colored filter sheet
- **Odor:** Generally Odorless
- **Odor Threshold:** None
- **pH:** No Data Available
- **Melting / Freezing Point (Specify):** No Data Available
- **Initial Boiling Point & Boiling Range:** No Data Available
- **Flash Point:** No Data Available
- **Evaporation Rate:** No Data Available
- **Flammability (solid, gas):** upper: No Data Available  lower: No Data Available
- **Explosive Limits:** LEL: No Data Available  UEL: No Data Available  Kst: No Data Available
- **Vapor Pressure:** No Data Available
- **Vapor Density:** No Data Available
- **Relative Density:** No Data Available
- **Solubility(ies):** No Data Available
- **Partition Coefficient (n-octanol/water):** No Data Available
- **Auto-ignition Temperature:** No Data Available
- **Decomposition:** No Data Available
- **Oxidizing Properties:** No Data Available
- **Viscosity:** No Data Available

Section 10 - STABILITY and REACTIVITY

10.1 Reactivity

No Data Available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

None

10.4 Conditions to avoid

Avoid open flame, sparks and other sources of ignition.

10.5 Incompatible materials

Avoid open flame, sparks and other sources of ignition.

10.6 Hazardous decomposition products

Combustion products include carbon monoxide, carbon dioxide and fine particulate in the form of smoke.

Section 11 - TOXICOLOGY INFORMATION

11.1 Information on toxicological effects

Toxicology Data: The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

<table>
<thead>
<tr>
<th>Toxicity Test</th>
<th>Exposure Route</th>
<th>Dose</th>
<th>Observed Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute Toxicity:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cellulose</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD₅₀ (rat)</td>
<td>Inhalation</td>
<td>5,800 mg/m³</td>
<td>Not Available</td>
</tr>
<tr>
<td>LD₅₀ (rat)</td>
<td>Oral</td>
<td>&gt; 5,000 mg/kg</td>
<td>Not Available</td>
</tr>
<tr>
<td>LD₅₀ (rabbit)</td>
<td>Dermal</td>
<td>&gt; 2,000 mg/kg</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation: No Data Available

Serious Eye Damage/Eye Irritation: No Data Available

Respiratory or Skin Sensitization: No Data Available

STOT - Single Exposure: No Data Available

STOT - Repeated Exposure: No Data Available

Aspiration Hazard: No Data Available

11.2 Further Information

Mutagenicity: No Data Available

Productive Toxicity: No Data Available

Carcinogenicity:

- **IARC:** 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Diatomaceous earth, Natural)
- **ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- **NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.
- **OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
## Section 12 - Ecological Information

12.1 Toxicity
No Data Available

12.2 Persistence and Degradability
Cellulose fiber slowly biodegrades in water (half-life range 1 month - 1 year in freshwater and coastal seawater.)

12.3 Bioaccumulative Potential
Not expected to bioaccumulate.

12.4 Mobility in Soil
Cellulose fiber persists in arid soil (landfills).

12.5 Other Adverse Effects
No Data Available

## Section 13 - Disposal Considerations

Substance: Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## Section 14 - Transportation Information

<table>
<thead>
<tr>
<th>UN Number:</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class:</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Proper Shipping Name:</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Packing Group:</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Marine Pollutant:</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Other Applicable Information:</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

## Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- **TSCA:** Diatomaceous Earth, Natural appears on the EPA TSCA inventory list.
- **SARA 302:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- **SARA 313:** This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.
- **SARA 311/312:** No SARA Hazards
- **California Prop. 65 Components:** WARNING! This product may contain crystalline silica, a chemical known to the State of California to cause cancer.

## Section 16 - Other Information

- **Product Number(s):**
  - CSF Filter Sheet Series Item Numbers: CSFSC, CSFSF, CSFSP, CSFUF
  - MTX Filter Sheet Series Item Numbers: MTX70

**Prepared By:** Gusmer Enterprises, Inc.  **Name of Preparer:** Eric Anderson  **Title:** Corporate Safety and Regulatory Manager  **Date:** 7/21/2017

**Disclaimer:** While the information in this document is based on data which, to the best of our knowledge, was accurate and reliable at the time of preparation, no responsibility can be accepted by us for errors or omissions. The provision of this information should not be construed as a recommendation to use any of our products in violation of any patent rights or in breach of any statute or regulation. Users are advised to make their own determination as to the suitability of this information in relation to their particular purposes and specific circumstances. Since the information contained in this document may be applied under conditions beyond our control, we can accept no responsibility for any loss or damage caused by any person acting or refraining from acting as a result of this information.

**GHS Hazard Warning Label:**

**No Hazard Warning Label Required:**

This product, as shipped, is not regulated as an OSHA hazardous material when used in its normal state and for its intended purpose.