Section 1 - PRODUCT and COMPANY IDENTIFICATION

1.1 Product Identifier

Product Name: Gusmer Cellulose Filter Sheet with Natural DE & Perlite
Product Code(s): CSFXC
Chemical Name: Mixture
Synonyms: *Crystalline Silica Free (CSF) Filter Sheet Series Filter Media: 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

Gusmer Enterprises, Inc.
Postal Address: 81 M Street, Fresno, CA 93721 USA
Telephone Number: (01)(559) 485-2692 [USA] (product info)
Hours of Operation: Monday - Friday 8:00am-5:00pm PST

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 28 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</td>
<td>45-55%</td>
<td>65996-61-4</td>
</tr>
<tr>
<td>Perlite, expanded</td>
<td>Sodium Potassium Aluminum Silicate</td>
<td>20-30%</td>
<td>93763-70-3</td>
</tr>
<tr>
<td>Diatomaceous Earth, Natural</td>
<td>Kieselguhr</td>
<td>20-30%</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.

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 (*Kv 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.

*Kv, the maximum rate of pressure rise is used to calculate the *Kv 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 practices 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>Material</th>
<th>OSHA PEL 1</th>
<th>ACGIH 2</th>
<th>NIOSH REL 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cellulose (C6H10O5)</strong></td>
<td>PEL-TWA 5 mg/m³ Total Dust (PNOR)</td>
<td>Not Established</td>
<td>REL-TWA 10 mg/m³ Total Dust</td>
</tr>
<tr>
<td></td>
<td>PEL-TWA 15 mg/m³ Respirable Dust (PNOR)</td>
<td>Not Established</td>
<td>REL-TWA 5 mg/m³ Respirable Dust</td>
</tr>
<tr>
<td></td>
<td>TWA-Total Dust (80 mg/m³)/%SiO2</td>
<td>Not Established</td>
<td>REL-TWA 5 mg/m³ Respirable Dust</td>
</tr>
<tr>
<td><strong>Diatomaceous Earth, Natural</strong></td>
<td>Not Established</td>
<td>Not Established</td>
<td>REL-TWA 5 mg/m³ Respirable Dust</td>
</tr>
<tr>
<td><strong>Perlite, expanded</strong></td>
<td>PEL-TWA 15 mg/m³ Total Dust (PNOR)</td>
<td>Not Established</td>
<td>REL-TWA 5 mg/m³ Total Dust</td>
</tr>
<tr>
<td></td>
<td>PEL-TWA 5 mg/m³ Respirable Dust (PNOR)</td>
<td>Not Established</td>
<td>REL-TWA 10 mg/m³ Total Dust</td>
</tr>
</tbody>
</table>

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: Cellulose dust >200 and <300 bar m/s
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: 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. Products containing silica may react violently with hydrofluoric acid and strongly basic solutions.

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.

Acute Toxicity: Cellulose

<table>
<thead>
<tr>
<th>Toxicity Test</th>
<th>Exposure Route</th>
<th>Dose</th>
<th>Observed Effect</th>
</tr>
</thead>
<tbody>
<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

UN Number: Not Applicable
Class: Not Applicable
Proper Shipping Name: Not Applicable
Packing Group: Not Applicable
Marine Pollutant: Not Applicable
Other Applicable Information: Not Applicable

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.

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

Section 16 - OTHER INFORMATION

Product Number(s): CSF Filter Sheet Series Item Number(s): CSFXC
Prepared By: Gusmer Enterprises, Inc. Name of Preparer: Eric Anderson
Title: Corporate Safety and Regulatory Manager Date: 7/21/2017

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