SAFETY DATA SHEET FORM

Section 1 - PRODUCT and COMPANY IDENTIFICATION

1.1 Product Identifier

Product Name: Gusmer Cellulose Filter Sheet with Glass & Acrylic
Product Code(s): 1330AO, 1330GO
Chemical Name: Mixture
Synonyms: Cellulose Filter Sheet

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.

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: (060) 424-9300

Section 2 - HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

Not considered a hazardous material when used in its normal state and use. This product does not release respirable dust when used in its normal state and use; however this product does contain man-made vitreous (silicate) fibers, which is considered a hazard by inhalation.

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Carcinogenicity (Category 2)

2.2 Label Elements

Signal Word: Warning

Hazard Pictogram(s):

Hazard Statements: Suspected of causing cancer by inhalation.
Precautionary Statements:
Obtain special instructions before use.
Use personal protective equipment as required.
Store locked up.
Dispose of contents/container to an approved waste disposal plant.

2.3 Emergency Overview

Appearance/Color: White to buff colored filter sheets, generally odorless.
Other Hazards: Warning: This product does not release respirable dust when used in its normal state and use; however this product does contain man-made vitreous fibers, which are considered a hazard by inhalation. NTP has classified inhalation of man-made vitreous fibers as reasonably anticipated to be a human carcinogen.

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>80-90%</td>
<td>65996-61-4</td>
</tr>
<tr>
<td>Man-made vitreous (silicate) fibers w/ random orientation w/ alkaline oxide &amp; alkali earth content &gt; 16% by wt</td>
<td>NA</td>
<td>7.9%</td>
<td>NA</td>
</tr>
<tr>
<td>Acrylic Copolymer</td>
<td>NA</td>
<td>1-3%</td>
<td>24980-62-9</td>
</tr>
<tr>
<td>FDA Approved resin binders and additives</td>
<td>&lt; 2%</td>
<td>NA</td>
<td></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 in product in purchased form. Wash with mild soap and water. Use moisture renewing lotions if dryness occurs.
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: Dust may cause irritative irritation to eyes.
Skin Contact: Prolonged skin contact may cause dryness.
Inhalation: Dust may cause nose, throat and upper respiratory tract irritation. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. See section 11 for additional information.
Ingestion: Not applicable for product in purchased form.

Chronic Effects: Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: No special advice, treat symptomatically.
Section 5 - Extinguishing Measures

5.1 Extinguishing Media
Suitable Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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.

Man-made vitreous (silicate) alkaline oxide & alkali earth

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 (*kR 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.

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

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures
Avoid contact with skin and eyes. Sweep or vacuum up for recovery and disposal. Avoid creating dusty conditions whenever feasible. Maintain good housekeeping practices. See Section 8 for more information.

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 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.

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 contact with skin and eyes. Sweep or vacuum up for recovery and disposal. Avoid creating dusty conditions whenever feasible. Maintain good housekeeping practices. See Section 8 for more information.

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

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.

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 limits.

Section 8 - Exposure Control / Personal Protection

8.1 Control parameters

<table>
<thead>
<tr>
<th></th>
<th>OSHA PEL1</th>
<th>ACGIH®</th>
<th>NIOSH REL2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellulose (C6H10O5)n</td>
<td>REL-TWA 15 mg/m³ Total Dust (PNOR)</td>
<td>TLV-TWA 10 mg/m³ Total Dust</td>
<td>REL-TWA 10 mg/m³ Total Dust</td>
</tr>
<tr>
<td>Man-made vitreous (silicate)</td>
<td>REL-TWA 15 mg/m³ Total Dust</td>
<td>Not Established</td>
<td>REL-TWA 5 mg/m³ Respirable Dust</td>
</tr>
<tr>
<td>fibers w/ random orientation w/ alkaline oxide &amp; alkali earth content &gt; 18% by w</td>
<td>REL-TWA 5 mg/m³ Respirable Dust</td>
<td>TLV - TWA 1 fiber/cm³ Respirable fraction</td>
<td>REL-TWA 3 fibers/cm³ Respirable 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:** No Data Available
- **Initial Boiling Point:** No Data Available
- **Flash Point:** No Data Available
- **Evaporation Rate:** No Data Available

Explosive Limits:
- **LEL:** No Data Available
- **UEL:** No Data Available
- **Kst:** Cellulose dust explosibility: (*Kst dry = >200 and <300 bar m/s)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Color</td>
<td>White to buff colored filter sheet</td>
</tr>
<tr>
<td>Odor</td>
<td>Generally Odorless</td>
</tr>
<tr>
<td>Melting / Freezing Point</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Initial Boiling Point</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Explosive Limits</td>
<td>LEL: No Data Available</td>
</tr>
<tr>
<td></td>
<td>UEL: No Data Available</td>
</tr>
<tr>
<td><strong>Kst:</strong></td>
<td>Cellulose dust explosibility: (*Kst dry = &gt;200 and &lt;300 bar m/s)</td>
</tr>
</tbody>
</table>

**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>LD₅₀ (rat)</td>
<td>Inhalation</td>
<td>5,900 mg/m³</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: May cause irritation through mechanical abrasion.

Serious Eye Damage/Eye Irritation: Product dust or powder may cause mechanical eye irritation

Respiratory or Skin Sensitization:
- Acute: Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible.
- Chronic: Prolonged exposure to the dust may cause wheezing, chest tightness, productive cough nasal irritation and symptoms of chronic respiratory disease. Dust may also induce asthmaic reactions via an allergic mechanism, particularly in individuals who are predisposed to developing allergies.

STOT - Single Exposure: No Data Available

STOT - Repeated Exposure: May cause damage to lungs through prolonged or repeated exposure.

Aspiration Hazard: No Data Available

11.2 Further Information

Mutagenicity: No Data Available

Productive Toxicity: No Data Available

Carcinogenicity:
- Man-made vitreous fibers are suspected of causing cancer by inhalation
- IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (synthetic vitreous fibers)
- NTP: Reasonably anticipated to be a human carcinogen
**SAFETY DATA SHEET FORM**

**Product Identifier:**
Gusmer Cellulose Filter Sheet with Glass & Acrylic

### 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:** Listed
- **CERCLA:** Not listed
- **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

**California Prop. 65 Components:**
WARNING! This product contains a chemical known to the State of California to cause cancer.

### Section 16 - OTHER INFORMATION

- **Product Number(s):** 1300 Filter Sheet Series Item Numbers: 1330AO, 1330GO
- **Prepared By:** Gusmer Enterprises, Inc.
- **Name of Preparer:** Eric Anderson
- **Title:** Safety, Compliance & GMP Manager
- **Date:** 5/11/2015

**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**

**Gusmer Cellulose Filter Sheet with Glass & Acrylic**

**Warning:**
Suspected of causing cancer by inhalation.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. If exposed or concerned: Get medical advice/attention. Store locked up, dispose of contents/container to an approved waste disposal plant.

Gusmer Enterprises Inc.
81 M St. Fresno, CA 93721 (559) 485-2692
1401 Ware Street, Waupaca, WI 54981 (715) 258-5325
CONSULT SDS FOR ADDITIONAL INFORMATION ON HAZARD