### Section 1 - PRODUCT and COMPANY IDENTIFICATION

**Product Identifier:** Gusmer Cellulose Carbon Filter Sheet

#### 1.1 Product Identifier

- **Product Name:** Gusmer Cellulose Carbon Filter Sheet
- **Product Code(s):** 1640CRM, 2640CRMP, 1640CRX, 1640HCX, 1640SXE, MC35, MC55, MC35C, MC55A, MC55C, MC55G
- **Chemical Name:** Mixture
- **Synonyms:** Cellulose Filter Sheet with Carbon

#### 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
- **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 use.

#### 2.2 Label Elements

- **Hazard Pictogram(s):** None
- **Signal Word:** NA
- **Hazard Statements:** NA
- **Precautionary Statements:** NA

#### 2.3 Emergency Overview

- **Appearance/Odor:** Black, carbon-impregnated 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.

**Activated carbon (especially when wet) can deplete oxygen from air in enclosed spaces, and dangerously low levels of oxygen may result. Prior to entering a confined space that contains or previously contained activated carbon, the space should be evaluated for oxygen and carbon monoxide concentrations, and any other hazards, by a qualified person.**

The primary health hazard posed by this product is thought to be due to exposure to cellulose and activated carbon dusts (reference "Section 8" below). Cellulose and activated carbon 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>10-50%</td>
<td>65996-61-4</td>
</tr>
<tr>
<td>Activated Carbon</td>
<td>Charcoal Black</td>
<td>20-75%</td>
<td>7440-44-0</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:** 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 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

5.1 Extinguishing Media

Water or other extinguishing agents appropriate for fighting surrounding fires.

Unsuitable Extinguishing Media: DO NOT USE a solid water stream as it may scatter and spread fire. In the event of a fire, spreading large amounts of activated carbon is not recommended due to the risk of creating uncontrolled dust emissions.

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_d dry > 200 and <300 bar m/s). Activated carbon explosibility: *(K_d 105 bar m/s). Cautions 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_d the maximum rate of pressure rise is used to calculate the *K_d 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. Do not store together with strong oxidizing agents.

See Section 8 for OSHA permissible exposure limits.

Section 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control parameters

<table>
<thead>
<tr>
<th>Cellulose (C_{6}H_{10}O_{5})</th>
<th>OSHA PEL</th>
<th>ACGIH</th>
<th>NIOSH REL</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL-TWA 15 mg/m</td>
<td>Total Dust (PNOR)</td>
<td>TLV-TWA 10 mg/m</td>
<td>Total Dust</td>
</tr>
<tr>
<td>PEL-TWA 5 mg/m</td>
<td>Respirable Dust (PNOR)</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>PEL-TWA 15 mg/m</td>
<td>Total Dust (PNOR)</td>
<td>TLV-TWA 10 mg/m</td>
<td>Total Dust</td>
</tr>
<tr>
<td>PEL-TWA 5 mg/m</td>
<td>Respirable Dust (PNOR)</td>
<td>TLV-TWA 3 mg/m</td>
<td>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.
**SAFETY DATA SHEET FORM**

**Product Identifier:**
Gusmer Cellulose Carbon Filter Sheet

**Section 9 - PHYSICAL and CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

- **Physical State:** Solid
- **Color:** Black 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
- **Vapor Pressure:** No Data Available
- **Vapor Density:** No Data Available
- **Relative Density:** 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**
Strong oxidizing agents, strong acids. 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**

**Toxicity Test** | **Exposure Route** | **Dose** | **Observed Effect**
--- | --- | --- | ---
Acute Toxicity: Cellulose | LC50 (rat) | Inhalation | 5,800 mg/m³ | Not Available
| LD50 (rat) | Oral | > 5,000 mg/kg | Not Available
| LD50 (rabbit) | Dermal | > 2,000 mg/kg | Not Available
Activated Carbon | LC50 (rat) | Inhalation | 1h > 8.5mg/l | Not Available
| LD50 (rat) | Oral | > 2000 mg/kg | Not Available

**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:** Not classified as a carcinogen by OSHA, NTP, or IARC in their reviews.

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

**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
No Data Available

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
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: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Section 16 - OTHER INFORMATION

Product Number(s):
1600 Filter Sheet Series Item Numbers: 1640CRM, 2640CRM, 1640CRX, 1640HCX, 1640SXE
MC Carbon Filter Sheet Series Item Numbers: MCO5, MCO55, MCO5C, MCO5A, MCO5SC, MCO5S5G
Prepared By: Gusmer Enterprises, Inc.
Name of Preparer: Eric Anderson
Title: Safety, Compliance & GMP Manager
Date: 5/14/2015

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GHS Hazard Warning Label

No Hazard Warning Label Required:
Not considered a hazardous material when used in its normal state and use.