SAFETY DATA SHEET FORM

Section 1 - PRODUCT and COMPANY IDENTIFICATION

1.1 Product Identifier

Product Name: Avantage American & French Oak

- Oak Avantage American: Oak Chips; Granular Oak
- Oak Avantage French: Oak Chips; Granular Oak
- Oak Avantage Granular Oak Infusion Bag: American Oak; French Oak

Product Code(s): AVANTAGE-AM, AVANCHIP-AM, AVANINFUS-AM

- AVANTAGE-FR, AVANCHIP-FR, AVANINFUS-FR

Chemical Name: Oak Wood Granulated and Chips

Synonyms:
- White oak: Quercus alba
- French oak: Quercus robur or quercus sessiliflora

1.2 Relevant identified uses of the substance or mixture and uses advised against

Uses Advised Against: Avoid generating airborne dust.

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)
- Telephone Number: (01)(715) 258-5525 [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 29 CFR 1910 (OSHA HCS)

- Carcinogenicity (Category 1A)
- Combustible Dust

2.2 Label Elements

- Hazard Pictogram(s):
- Signal Word: Danger

Hazard Statements:
- May cause cancer by inhalation.
- May form combustible dust concentrations in air.

Precautionary Statements:
- Do not handle until all safety precautions have been read and understood.
- Use personal protective equipment as required.
- Store locked up.
- Disposal of contents/container to an approved waste disposal plant.
- Ventilation recommended.

2.3 Emergency Overview

Appearance/Odor:
- Oak Avantage: Toasted - Brown to dark brown oak wood granules, powder and/or fragments. Typical oak odor.
- Oak Avantage Granular Oak Infusion Bag: Avantage French Granular Oak Infusion, Avantage American Granular Oak Infusion - Brown to dark brown oak wood granules, powder and/or fragments enclosed in a white Polypropylene spun bound Nonwoven bag. Typical oak odor.

Other Hazards: Warning: This product consists of white oak (Quercus alba) heartwood with no additives. The primary health hazard posed by this product is dust inhalation which can cause respiratory system irritation. Contact with skin and eyes can also cause irritation. Prolonged or repeated inhalation of wood dust may cause cancer. Wood dust is listed as a carcinogen by NTP, OSHA, and IARC. IARC - Group 1: Carcinogenic to humans; sufficient evidence of carcinogenicity.

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. Users of this product should examine the potential to generate dusts during handling and processing and related combustibility hazards and controls.

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>Oak Wood</td>
<td>Hard wood</td>
<td>&gt;99%</td>
<td>NA</td>
</tr>
</tbody>
</table>

*Oak Avantage Granular Oak Infusion Bag Only:*

- Polypropylene, Homopolymer: NA
- Polypropylene, Isotactic: NA
- Aluminium Hydroxide: NA
- Titanium Dioxide: Rutile, Titanium Oxide

- CAS No.: 9003-07-0
- CAS No.: 25865-53-4
- CAS No.: 21645-51-2
- CAS No.: 13463-67-7
SAFETY DATA SHEET FORM

Section 4 - FIRST AID MEASURES

4.1 Description of the first aid measures

Eye Contact: Immediately flush eyes with copious amounts of water. If irritation develops, seek medical attention.
Skin Contact: Wash skin with plenty of soap and water. Get medical attention if irritation develops.
Inhalation: Move to fresh air. If not breathing, administer artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.
Ingestion: If swallowed, Do Not Induce Vomiting. Give large quantities of water. Never give anything by mouth to an unconscious person. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Eye Contact: Contact may cause mild eye irritation with redness, tearing, and other vision effects. Sensitive individuals may develop contact dermatitis.
Skin Contact: None under normal use. In sensitive individuals, may cause skin irritation. Symptoms may include itching.
Inhalation: None under normal use. Inhalation of high concentration of dusts may produce nasal dryness, irritation and obstruction. Coughing, wheezing, sneezing, sinusitis and prolonged colds may also develop. Excess inhalation of dust may cause asphyxiation.
Ingestion: Not a likely route of exposure under anticipated use conditions. If swallowed, may cause irritation of the gastrointestinal tract and discomfort with symptoms of nausea.

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: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

Natural decomposition of organic materials such as wood may produce toxic gases and an oxygen deficient atmosphere in enclosed or poorly ventilated areas. Thermal decomposition (i.e. smoldering, burning) products include carbon monoxide, carbon dioxide, aliphatic aldehydes, terpenes, and polycyclic aromatic hydrocarbons.

Auto-Ignition Temperature: Variable [typically 400° - 500°F (204° - 260°F)]

5.3 Advice for firefighters

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

Explosion Hazards: Depending on moisture content, and more importantly, particle diameter, wood dust may explode in the presence of an ignition source. For wood dust, an airborne concentration of 40 grams (40,000mg) of dust per cubic meter of air is often used as the LEL. Reference NFPA Standards 654 and 664 for guidance. Ventilation systems should be kept clean and precautions should be taken to prevent sparks or other ignition sources.

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 combustible material. 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.

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. Protect from excessive moisture and sun. Do not store next to vaporizable materials to avoid pick up of surrounding odors into the wood product. See Section 8 for OSHA permissible exposure limit(s)

Section 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control parameters

<table>
<thead>
<tr>
<th>Wood (wood dust)</th>
<th>OSHA PEL1</th>
<th>ACGIH2</th>
<th>NIOSH REL3</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL-TWA 15 mg/m³ Total Dust (PNOR)¹</td>
<td>TLV-TWA 1 mg/m³ Inhalable Fraction</td>
<td>REL-TWA 1 mg/m³</td>
<td></td>
</tr>
<tr>
<td>PEL-TWA 15 mg/m³ Respirable Dust (PNOR)²</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

8.2 Exposure controls

Normal Handling Conditions:
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 dust settles to avoid excessive accumulation of this combustible material. Minimize compressed air blowdown or other practices that generate high airborne-dust concentrations.

Notes: 1. OSHA particulate not otherwise regulated (PNOR)
SAFETY DATA SHEET FORM

Product Identifier: Avantage American & French Oak

Section 9 - PHYSICAL and CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical State: Solid

Color: See Section 2.3

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: 40,000 mg of dust per cubic meter of air is often used as the LEL for wood dusts.

Vapor Pressure: No Data Available

Vapor Density: No Data Available

Relative Density: No Data Available

Solubility(ies):<0.1

Partition Coefficient (n-octanol/water): No Data Available

Auto-ignition Temperature: Variable [typically 400° - 500°F (204° - 260°F)]

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 contact with oxidizing agents and drying oils.

10.6 Hazardous decomposition products

Natural decomposition of organic materials such as wood may produce toxic gases and an oxygen deficient atmosphere in enclosed or poorly ventilated areas. Thermal decomposition (i.e. smoldering, burning) products include carbon monoxide, carbon dioxide, aliphatic aldehydes, terpenes, and polycyclic aromatic hydrocarbons. Spontaneous and rapid hazardous decomposition will not occur.

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:

Oral LD₅₀: No Data Available

Dermal LD₅₀: No Data Available

Skin Corrosion/Irritation: Not expected to be a skin irritant under normal use. Some species of wood dust can cause allergic reactions (dermatitis) in sensitized individuals.

Serious Eye Damage/Eye Irritation: May cause eye irritation

Respiratory or Skin Sensitization: Not expected to be a sensitizing material under normal use. May cause transitory irritation to the nose, throat and lungs. Dusts generated from this material or product may cause nasal dryness, irritation, coughing or sinusitis. See Section 8 for exposure limits.

STOT - Single Exposure: Wood dust can cause eye irritation. Certain species of wood dust can elicit allergic contact dermatitis in sensitized individuals. Wood dust may cause respiratory irritation, nasal dryness, coughing, sneezing and wheezing as a result of inhalation.

STOT - Repeated Exposure: Wood dust, depending on the species, may cause allergic contact dermatitis and respiratory sensitization with prolonged, repetitive contact or exposure to elevated dust levels.

Aspiration Hazard: No Data Available

11.2 Further Information

Mutagenicity: Exposure to wood dust may cause cellular changes in the nasal epithelium.

Productive Toxicity: No Data Available

Carcinogenicity: One or more of the ingredients are found on the following lists: Federal OSHA Z List, NTP, CAL/OSHA, IARC and therefore is considered to be, or suspected to be a cancer-causing agent by these agencies.

Wood Dust - NTP: According to its Report on Carcinogens, Twelfth Edition, NTP states, "Wood dust is known to be a human carcinogen based on sufficient evidence of carcinogenicity from studies in humans". An association between wood dust exposure and cancer of the nasal cavity has been observed in many case reports, cohort studies, and case-control studies that specifically addressed nasal cancer. Strong and consistent associations with cancer of the nasal cavities and paranasal sinuses were observed both in studies of people whose occupations are associated with wood dust exposure and in studies that directly estimated wood dust exposure. This classification is based primarily on increased risk in the occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to wood dust. The evaluation did not find sufficient evidence to associate cancers of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon or rectum with exposure to wood dust. There is inadequate evidence for the carcinogenicity of wood dust from studies in experimental animals according to NTP.

Wood Dust - IARC - Group 1: Carcinogenic to humans; sufficient evidence of carcinogenicity. This classification is primarily based on studies showing an association between occupational exposure to wood dust and adenocarcinoma to the nasal cavities and paranasal sinuses. IARC did not find sufficient evidence of an association between occupational exposure to wood dust and cancers of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon or rectum.

NTP: Wood dust - known human carcinogen.

OSHA: Not listed by OSHA.
**SAFETY DATA SHEET FORM**

**Product Identifier:** Avantage American & French Oak

### Section 12 - ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>12.1 Toxicity</th>
<th>No Data Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.2 Persistence and degradability</td>
<td>No Data Available</td>
</tr>
<tr>
<td>12.3 Bioaccumulative potential</td>
<td>Not expected to bioaccumulate.</td>
</tr>
<tr>
<td>12.4 Mobility in soil</td>
<td>No Data Available</td>
</tr>
<tr>
<td>12.5 Other adverse effects</td>
<td>No Data Available</td>
</tr>
</tbody>
</table>

### 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 |

### Section 15 - REGULATORY INFORMATION

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

- **OSHA:** Wood products per se are not hazardous under the criteria of the federal OSHA Hazard Communication Standard 29CFR 1910.1200. However, wood dust may be hazardous and hence included under 1910.1200.
- **TSCA:** Not Applicable
- **CERCLA:** Not Applicable
- **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:** This product has been reviewed according to the EPA-“Hazard Categories” promulgated under SARA Title III Sections 311 and 312 and is considered, under applicable definitions, to meet the following categories:

  - An immediate (acute) health hazard: Yes
  - A delayed (chronic) health hazard: Yes
  - A corrosive hazard: No
  - A fire hazard: No
  - A reactivity hazard: No
  - A sudden release hazard: No

- **California Prop. 65 Components:**

  **WARNING!** This product can expose you to Wood Dust, which is known to the state of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

- **WHMIS Classification:** Class D-2-A - wood dust: IARC Group 1.

### Section 16 - OTHER INFORMATION

**Product Names/Number(s):**

- American Oak Avantage - Granular: AVANTAGE-AM
- American Oak Avantage - Chips: AVANCHIP-AM
- Oak Avantage American Granular Oak Infusion Bag: AVANINFUS-AM
- French Oak Avantage - Granular: AVANTAGE-FR
- French Oak Avantage - Chips: AVANCHIP-FR
- Oak Avantage French Granular Oak Infusion Bag: AVANINFUS-FR

**Prepared By:** Gusmer Enterprises, Inc.

**Name of Preparer:** Eric Anderson

**Title:** Corporate Safety & Regulatory Manager

**Date:** 5/3/2018

**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**

**Avantage American & French Oak**

**DANGER:**

- May cause cancer by inhalation.
- May form combustible dust concentrations in air.

Obtain special instructions before use. Do not breathe dust. 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. Ventilation recommended.

Gusmer Enterprises Inc.
81 M St, Fresno, CA 93721 (559) 485-2692
1401 Ware Street, Waupaca, WI 54981 (715) 258-5525

CONSULT SDS FOR ADDITIONAL INFORMATION ON HAZARD