Safety Data Sheet

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name  ● Sunbrella Awning/Marine
Product Description  ● Woven Acrylic Fabric with water repellent finish

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

Relevant identified use(s)  ● Awning/Marine fabrics
Use(s) advised against  ● Please contact manufacturer before using in any other applications, not flame retardant

1.3 Details of the supplier of the safety data sheet

Manufacturer  ● Glen Raven Custom Fabrics, LLC
1831 N Park Avenue
Glen Raven, NC 27217
United States
www.sunbrella.com

Telephone (General)  ● 864-224-1671

1.4 Emergency telephone number

● 1-800-424-9300 - Chemtrec Within USA and Canada

Section 2: Hazards Identification

EU/EEC

2.1 Classification of the substance or mixture

CLP  ● Not classified
DSD/DPD  ● Not classified
2.2 Label Elements

CLP

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards

CLP

• This material is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.

DSD/DPD

• This product is not considered dangerous under the European Directive 67/548/EEC.

United States (US)
According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 • Not classified

2.2 Label elements

OSHA HCS 2012

Hazard statements • No label element(s) required

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200(c) - Hazard Communication Standard), the product(s) listed above are exempt as article(s) under stated normal conditions of use.

Canada
According to WHMIS

2.1 Classification of the substance or mixture

WHMIS • Not classified

2.2 Label elements

WHMIS • No label element(s) required

2.3 Other hazards

WHMIS • Under Canadian regulations (Workplace Hazardous Materials Information System (WHMIS) - Hazardous Products Act (HPA), Section 11(1)), these product(s) are exempt and considered manufactured article(s) under stated normal conditions of use.

2.4 Other information

• This material, as an article, does not legally require an SDS.
Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Identifiers</th>
<th>% (weight)</th>
<th>LD50/LC50</th>
<th>Classifications According to Regulation/Directive</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>CAS: 50-00-0</td>
<td>&lt;= 0.3%</td>
<td>Ingestion/Oral-Rat LD50 • 100 mg/kg Inhalation-Rat LC50 • 203 mg/m³ Skin-Rabbit</td>
<td>EU DSD/DPD: Annex I - Carc. 3, R40 EU CLP: Annex VI - Carc. 2, H351 OSHA HCS 2012: Hazardous</td>
<td>These fabrics are treated with a formaldehyde-based resin and can release formaldehyde gas into the air. Fabric formaldehyde content as determined by AATCC Test Method 112-1992, commonly called the jar test method. This is a measure of formaldehyde in fabric and not in the workplace air.</td>
</tr>
</tbody>
</table>

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs/symptoms develop, get medical attention.

Eye
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.

Ingestion
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Under normal conditions of use, no health effects are expected.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician
- No specific actions or treatments recommended related to exposure to this material.
Section 5 - Firefighting Measures

5.1 Extinguishing media
Suitable Extinguishing Media  • Water fog, carbon dioxide, foam, dry chemical.
Unsuitable Extinguishing Media • No data available.

5.2 Special hazards arising from the substance or mixture
Unusual Fire and Explosion Hazards • Avoid skin contact with molten material.
Hazardous Combustion Products • No data available

5.3 Advice for firefighters
• Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures
Personal Precautions  • No special precautions expected to be necessary if material is used under ordinary conditions and as recommended.
Emergency Procedures  • No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

6.2 Environmental precautions
• Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up
Containment/Clean-up Measures  • Carefully shovel or sweep up spilled material and place in suitable container.

6.4 Reference to other sections
• Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling
Handling  • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities
Storage  • Fabrics should be stored in cool, well ventilated area to avoid formaldehyde gas accumulation.

7.3 Specific end use(s)
• Refer to Section 1.2 - Relevant identified uses.
Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Exposure Limits/Guidelines</th>
<th>ACGIH</th>
<th>Canada Ontario</th>
<th>Canada Quebec</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde (50-00-0)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ceilings</td>
<td>0.3 ppm Ceiling</td>
<td>1.5 ppm Ceiling</td>
<td>2 ppm Ceiling; 3 mg/m³ Ceiling</td>
<td>Not established</td>
</tr>
<tr>
<td>STELs</td>
<td>Not established</td>
<td>1.0 ppm STEL</td>
<td>Not established</td>
<td>2 ppm STEL (see 29 CFR 1910.1048)</td>
</tr>
<tr>
<td>TWAs</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
<td>0.75 ppm TWA</td>
</tr>
</tbody>
</table>

Exposure Control Notations

Canada Quebec
- Formaldehyde (50-00-0): Carcinogens: (C2 carcinogen - effect suspected in humans)
- ACGIH

- Formaldehyde (50-00-0): Carcinogens: (A2 - Suspected Human Carcinogen) | Sensitizers: (Sensitizer)

Exposure Limits Supplemental

ACGIH
- Formaldehyde (50-00-0): TLV Basis - Critical Effects: (eye and upper respiratory tract irritation)

8.2 Exposure controls

Engineering Measures/Controls
- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

- Respiratory: No respiratory protection is required under normal conditions and use.
- Eye/Face: No eye protection is ordinarily required under normal conditions of use.
- Skin/Body: No skin protection is ordinarily required under normal conditions of use.
- Follow best practice for site management and disposal of waste.

Environmental Exposure Controls

- Storage: Fabrics should be stored in cool, well ventilated to avoid formaldehyde gas accumulation

Key to abbreviations

TWA = Time-Weighted Averages are based on 8h/day, 40 h/week exposures
ACGIH = American Conference of Governmental Industrial Hygiene
OSHA = Occupational Safety and Health Administration
STEL = Short Term Exposure Limits are based on 15-minute Exposures
TWAEV = Time-Weighted Average Exposure Value

Preparation Date: 08/August/2015
Revision Date: 24/May/2016
Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Material Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Form</td>
</tr>
<tr>
<td>Appearance/Description</td>
</tr>
<tr>
<td>Color</td>
</tr>
<tr>
<td>Odor Threshold</td>
</tr>
<tr>
<td>General Properties</td>
</tr>
<tr>
<td>Boiling Point</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
</tr>
<tr>
<td>Specific Gravity/Relative Density</td>
</tr>
<tr>
<td>Viscosity</td>
</tr>
<tr>
<td>Oxidizing Properties:</td>
</tr>
<tr>
<td>Volatility</td>
</tr>
<tr>
<td>Vapor Pressure</td>
</tr>
<tr>
<td>Evaporation Rate</td>
</tr>
<tr>
<td>Flammability</td>
</tr>
<tr>
<td>Flash Point</td>
</tr>
<tr>
<td>LEL</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
</tr>
<tr>
<td>Environmental</td>
</tr>
<tr>
<td>Octanol/Water Partition coefficient</td>
</tr>
</tbody>
</table>

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- None known.

10.5 Incompatible materials

- Strong acids, oxidizers.

10.6 Hazardous decomposition products

- Thermal decomposition may produce carbon monoxide, carbon dioxide, ammonia, nitrogen oxides, hydrocarbons, hydrogen cyanide, hydrogen fluoride, acrylic monomer, smoke, soot, and other toxics dependent on specific conditions.
Section 11 - Toxicological Information

11.1 Information on toxicological effects

<table>
<thead>
<tr>
<th>GHS Properties</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>EU/CLP • Not tested</td>
</tr>
<tr>
<td></td>
<td>OSHA HCS 2012 • Not tested</td>
</tr>
<tr>
<td>Aspiration Hazard</td>
<td>EU/CLP • Not tested</td>
</tr>
<tr>
<td></td>
<td>OSHA HCS 2012 • Not tested</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>EU/CLP • Not tested</td>
</tr>
<tr>
<td></td>
<td>OSHA HCS 2012 • Not tested</td>
</tr>
<tr>
<td>Germ Cell Mutagenicity</td>
<td>EU/CLP • Not tested</td>
</tr>
<tr>
<td></td>
<td>OSHA HCS 2012 • Not tested</td>
</tr>
<tr>
<td>Skin corrosion/Irritation</td>
<td>EU/CLP • Not tested</td>
</tr>
<tr>
<td></td>
<td>OSHA HCS 2012 • Not tested</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>EU/CLP • Not tested</td>
</tr>
<tr>
<td></td>
<td>OSHA HCS 2012 • Not tested</td>
</tr>
<tr>
<td>STOT-RE</td>
<td>EU/CLP • Not tested</td>
</tr>
<tr>
<td></td>
<td>OSHA HCS 2012 • Not tested</td>
</tr>
<tr>
<td>STOT-SE</td>
<td>EU/CLP • Not tested</td>
</tr>
<tr>
<td></td>
<td>OSHA HCS 2012 • Not tested</td>
</tr>
<tr>
<td>Toxicity for Reproduction</td>
<td>EU/CLP • Not tested</td>
</tr>
<tr>
<td></td>
<td>OSHA HCS 2012 • Not tested</td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td>EU/CLP • Not tested</td>
</tr>
<tr>
<td></td>
<td>OSHA HCS 2012 • Not tested</td>
</tr>
<tr>
<td>Serious eye damage/Irritation</td>
<td>EU/CLP • Not tested</td>
</tr>
<tr>
<td></td>
<td>OSHA HCS 2012 • Not tested</td>
</tr>
</tbody>
</table>

Potential Health Effects

**Inhalation**
- **Acute (Immediate)**: Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)**: Under normal conditions of use, no health effects are expected.

**Skin**
- **Acute (Immediate)**: Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)**: Under normal conditions of use, no health effects are expected.

**Eye**
- **Acute (Immediate)**: Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)**: Under normal conditions of use, no health effects are expected.

**Ingestion**
- **Acute (Immediate)**: Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)**: Under normal conditions of use, no health effects are expected.
Other

Acute (Immediate)
- Excessive exposure to formaldehyde gas or particulates containing formaldehyde may result in irritation of the eyes, nose, and throat; skin contact may cause irritation. Irritation generally subsides upon cessation of exposure.

Chronic (Delayed)
- Prolonged or repeated skin contact may cause irritation or allergic sensitization to formaldehyde in some individuals. In rare instances, excessive exposure to formaldehyde gas may cause respiratory sensitization.

Carcinogenic Effects
- Formaldehyde is listed as a suspect human carcinogen by OSHA. It is listed as “probably carcinogenic to humans” (Group 2A) by the International Agency for Research on Cancer (IARC Monographs, Vol.62), and as “reasonably anticipated to be human carcinogen” (Group II.B.) by the National Toxicology Program (NTP, 9th Edition). Formaldehyde is listed as by California Proposition 65 as a chemical known to the state of California to cause cancer. Exposure to airborne formaldehyde at high concentrations (6 and 15 ppm) has been found to cause nasal tumors in rats and mice. The response was dose related – animals exposed to higher levels were more likely to develop tumors than those exposed to lower levels. A no-observable effect level for nasal cell proliferation and tissue damage – thought to be necessary precursors to cancer – has been established in rodents and monkeys at 2.5 mg/m3 formaldehyde in air. Some, not all, epidemiology studies in humans have shown an association between formaldehyde exposure and cancers of the nose and throat. No consistent association has been shown between formaldehyde exposure and other types of cancer in humans. Generally, the level of formaldehyde related to tumor production in rats and mice was considerably in excess of what is found in textile and apparel manufacturing, and would be intolerable to most humans due to sensory irritation.

Section 12 - Ecological Information

12.1 Persistence and degradability
- No data.

12.2 Bioaccumulative potential
- No data.

12.3 Mobility in Soil
- No data.

12.4 Results of PBT and vPvB assessment
- PBT and vPvB assessments have not been carried out.

12.5 Other adverse effects
- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods
Product waste
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
### Section 14 - Transport Information

<table>
<thead>
<tr>
<th></th>
<th>14.1 UN number</th>
<th>14.2 UN proper shipping name</th>
<th>14.3 Transport hazard class(es)</th>
<th>14.4 Packing group</th>
<th>14.5 Environmental hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>NDA</td>
<td>Not Regulated</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
</tr>
<tr>
<td>TDG</td>
<td>NDA</td>
<td>Not Regulated</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
</tr>
<tr>
<td>IMO/IMDG</td>
<td>NDA</td>
<td>Not Regulated</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
</tr>
<tr>
<td>IATA/ICAO</td>
<td>NDA</td>
<td>Not Regulated</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
</tr>
</tbody>
</table>

#### 14.6 Special precautions for user
- None known

#### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
- None known

### Section 15 - Regulatory Information

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

**SARA Hazard Classifications**
- None

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>MA</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>Canada DSL</th>
<th>EU EINECS</th>
<th>EU ELNICS</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

#### 15.2 Chemical Safety Assessment
- Chemical Safety Assessment is not required.

### Section 16 - Other Information

- **Last Revision Date**: 24/May/2016
- **Preparation Date**: 08/August/2015
- **Disclaimer/Statement of Liability**: The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.