Material Safety Data Sheet

1. Product and company designation
   1.1 Product Nonwoven made of Viscose-
   Polyester- and Polypropylene-Fibers

   1.2 Company FLITZ INTERNATIONAL
   821 Mohr Avenue
   Waterford, WI 53185
   Tel. 262-534-5898
   info@flitz.com

2. Composition and Details of constituents
   2.1 Composition

<table>
<thead>
<tr>
<th>Viscose-Fiber, natural fiber CV</th>
<th>Polyester-Fiber, man-made fiber PES</th>
<th>Polypropylene-Fiber, man-made fiber PP</th>
<th>Additives, e.g. Titanium Dioxide, dyestuff</th>
<th>Finish agent</th>
</tr>
</thead>
<tbody>
<tr>
<td>* %</td>
<td>* %</td>
<td>* %</td>
<td>&lt; 2 %</td>
<td>&lt; 1 %</td>
</tr>
<tr>
<td>9004-34-6</td>
<td>25 038-59-9</td>
<td>9003-07-0</td>
<td>13463-67-7</td>
<td>---</td>
</tr>
</tbody>
</table>

   * Actual Composition see Technical Data Sheet or Specification!

   2.2 Finish
   Fiber may contain approximately 2 % Titanium Dioxide/dyestuffs and up to 1 % of textile processing aids (finish agent).

3. Potential hazards
   3.1.1 The nonwoven has not been classified as a hazardous substance in accordance with EC regulations. To date, proper use of this fiber product has not been associated with a specific hazard or any detrimental effects on health.

   3.1.2 The product is burnable. Keep away from ignition sources.

4. First aid measures
   4.1.1 Inhalation hazards of this product are negligible if existing threshold limit values are kept. Inhalation of dust and finish decomposition products should be avoided by suction hood and fresh air ventilation.

Issued: 01/05/2015
5. Measures in case of fire

5.1.1 Burning behavior nonwoven:

<table>
<thead>
<tr>
<th>Material</th>
<th>Melting range</th>
<th>Auto-Ignition temperature</th>
<th>Extraneous-Ignition temperature</th>
<th>Thermal decomposition</th>
<th>Dangerous decomposition products</th>
</tr>
</thead>
<tbody>
<tr>
<td>CV content</td>
<td>Does not melt or soften</td>
<td>CV content</td>
<td>Does not melt or soften</td>
<td>CV content</td>
<td>Does not melt or soften</td>
</tr>
<tr>
<td>PES content</td>
<td>250 – 260 °C</td>
<td>CV content</td>
<td>400 – 460 °C</td>
<td>CV content</td>
<td>300 °C</td>
</tr>
<tr>
<td>PP content</td>
<td>150 – 170 °C</td>
<td>CV content</td>
<td>480 – 515 °C</td>
<td>CV content</td>
<td>300 °C</td>
</tr>
<tr>
<td>PP content</td>
<td>~ 330 °C</td>
<td>CV content</td>
<td>~ 390 °C</td>
<td>PP content</td>
<td>Data deficient</td>
</tr>
<tr>
<td>PES content</td>
<td>250 – 260 °C</td>
<td>PP content</td>
<td>Data deficient</td>
<td>PP content</td>
<td>Data deficient</td>
</tr>
<tr>
<td>PP content</td>
<td>150 – 170 °C</td>
<td>PES content</td>
<td>480 – 515 °C</td>
<td>PES content</td>
<td>300 °C</td>
</tr>
<tr>
<td>PP content</td>
<td>~ 330 °C</td>
<td>PES content</td>
<td>~ 390 °C</td>
<td>PES content</td>
<td>300 °C</td>
</tr>
</tbody>
</table>

5.1.2 Extinguishing agents

All standard extinguishing agents

Unsuitable: Don’t use water, if fire is caused by an electrical problem.

Use self-contained breathing apparatus, especially in closed rooms.

6. Handling and storage

- All rolls of nonwoven have to be stored in accordance to the local regulations and laws. Store dry and avoid too long terms of sunlight.
- Be careful when roll packing is removed! Use suitable tools and personal protection.
- Avoid fiber fly, dust and decomposition products by ventilation and aeration. Regular cleaning of machinery, working areas and clothing recommended. Keep away from ignition sources and flammable substances. Be aware of consequences caused by electrical charge. Do not store in the neighborhood of strong oxidizing materials.

7. Limits to exposure and personal safety measures

There are no specific exposure limits for workplace.

Respiratory precaution: None

Protection of hands: In case of high allergic sensitivity, contact over longer periods should be avoided.

Eye protection: No special measures

Body protection: Safety footwear is recommended during transport rolls.
Comply with national occupational threshold values for dust. According to TRGS 900 in Germany there are two values:

- 3 mg/m³ for fine dust (may penetrate alveolus)
- 10 mg/m³ for coarse dust ( respirable dust)

8. Disposal
Waste may be disposed at a disposal site or burned in suitable incinerators in accordance with relevant regulations.

9. Transport
- Not hazardous/dangerous
- No identification required

10. Physical and chemical properties

<table>
<thead>
<tr>
<th>Form</th>
<th>Nonwoven</th>
<th>Odor</th>
<th>Odorless</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composition/Content</td>
<td>CV Viscose-Fiber</td>
<td>PES Polyester-Fiber</td>
<td>PP Polypropylene-Fiber</td>
</tr>
<tr>
<td>Melting range</td>
<td>Natural fiber, does not melt or soften</td>
<td>250-260 °C</td>
<td>150 – 170 °C</td>
</tr>
<tr>
<td>Thermal decomposition</td>
<td>&gt; 175 °C</td>
<td>&gt; 300 °C</td>
<td>&gt; 300 °C</td>
</tr>
<tr>
<td>Extraneous-Ignition temperature</td>
<td>~ 300 °C</td>
<td>~ 390 °C</td>
<td>Date deficient</td>
</tr>
<tr>
<td>Auto-Ignition temperature</td>
<td>400-460 °C</td>
<td>480-515 °C</td>
<td>~ 330 °C</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Insoluble</td>
<td>Insoluble</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Residual solvents</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Stability and reactivity</td>
<td>1)</td>
<td>Stable</td>
<td>Stable</td>
</tr>
</tbody>
</table>

1) Stable at 115 °C up to one hour. At higher temperatures or when longer exposed fiber will turn yellowish. Long time exposure to higher temperatures will reduce tenacity. Long lasting exposure to light will cause some discoloration and decrease of tenacity.

Caustic soda of 8-10 % concentration will attack fibers at room temperature. Fibers will be dissolved by diluted hot and by concentrated acids (similar to cotton).

11. Toxicological-Ecological Information
- The nonwoven is non-toxic. There are no toxic, very toxic, carcinogenic, mutagenic or reprotoxic substances. Please refer to the manufacturer before using the product for application in food industry, medical or surgical purposes.
- The product is ecological uncritical and not hazardous to water.
- Components of the textile processing aid (finish) may vaporize or decompose at temperatures above 130 °C.
Material Safety Data Sheet

- If subsequent processing involves the use of water, the waste water should be given the appropriate treatment in a purifying plant, in line with local regulations.
- If recycling is not possible, the nonwoven can be disposed of in a suitable refuse installation or incinerated subject to local regulations.
- The content of PES and PP (made-made fibers) is non-biodegradable; the content of Viscose is completely biodegradable.