SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: JLON J-5500
MANUFACTURER: Jade Engineered Plastics
ADDRESS: 121 Broad Common Rd
          Bristol RI 02809
EMERGENCY PHONE: 401-253-4440 (24 hours)
Issue Date: 03/01/2010

SECTION 2: INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>% by Wt</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>Ceiling Limit Value</th>
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<tbody>
<tr>
<td>PTFE</td>
<td>9002-84-0</td>
<td>80-90%</td>
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<tr>
<td>Polyimide</td>
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<td>10-20%</td>
<td>None</td>
<td>None</td>
<td>None</td>
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</table>

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

NFPA Rating: Health: 2; Flammability: 1; Reactivity: 0
HMIS Classification: Health: 2; Flammability: 1; Reactivity: 0
Emergency Overview: Dust from this product may be harmful if inhaled. High heat processing may liberate toxic gases. See sections 4, 5, & 10 for more information on thermal decomposition products.

Potential Health Effects:
- **Inhalation:** High concentrations of airborne dust may cause irritation to the respiratory tract.
- **Ingestion:** Ingestion may cause irritation to the gastrointestinal tract.
- **Eye Contact:** May cause irritation to the eyes due to mechanical abrasion of particles.
- **Skin Contact:** Generally does not cause skin irritation.
- **Medical conditions Aggravated by exposure:** None known.

Specific Physical Form: Skived Films, Rods, Sheets, Tubes, Molded/Machined Parts
Odor, Color: None, Yellow
General Physical Form: Solid
Immediate health, physical, and environmental hazards: None

SECTION 4: FIRST AID MEASURES

- **Inhalation:** Remove person to fresh air. If cough or irritation develops, give a glass of water. Never give anything by mouth to an unconscious person. If systems persist, seek medical attention.
- **Skin Contact:** Wash material from skin with plenty of soap and water.
- **Eye Contact:** Flush eyes with plenty of water while holding eyelids open.
- **If Swallowed:** If person is conscious, rinse mouth with water. Never give anything by mouth to an unconscious person.
- **Notes to Physician:** High heat processing of this product liberates thermal composition gases, which, when inhaled, can result in polymer fume fever. This condition is characterized by influenza type symptoms (fever, cough, and malaise), which usually occurs within a few hours and resolves within 48 hours. Following severe exposure the patient should be kept under medical surveillance for at least 48 hours since delayed pulmonary edema may develop.
SECTION 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Use media suitable for surrounding fire. Product does not support combustion or flame.
Unusual Fire & Explosion: None known

Hazards:
Hazardous Decomposition: See Section 10

Products:
Autoignition temperature Not Applicable
Flash Point Not Applicable

Flammable Limits in Air
Flammable Limits - LEL Not Applicable
Flammable Limits - UEL Not Applicable

Fire Fighting Protective Equipment: Exposure to extreme heat can give rise to thermal decomposition. Wear self-contained breathing apparatus (SCBA) to prevent inhalation of toxic thermal decomposition products.

Specific Methods: Evacuate area and restrict access to area. Use fire fighting methods suitable for surrounding fire. Product does not readily burn. Keep containers cool with water spray if possible

SECTION 6: ACCIDENTAL RELEASE MEASURES

Environmental Protection: No special environmental precautions required.
Methods for Clean-up: Refer to Section 8 for exposure controls. Restrict area. Ensure adequate ventilation. Gently sweep or vacuum spilled material & collect for disposal. Mop or wipe residual from surface using water.

SECTION 7: HANDLING AND STORAGE

Safe Handling Precautions: Avoid creating dust and heating above 260C (PTFE). If these conditions cannot be avoided, use adequate ventilation to capture dust or decomposition products at the source.
Safe Storage Conditions: Keep containers tightly closed in a cool, well ventilated place
Incompatible Products: None known
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Provide local exhaust ventilation in your process to capture dust or thermal decomposition gases at their source. Refer to the ACGIH Guide to Industrial Ventilation for design assistance.

Hand Protection: Rubber Gloves
Eye Protection: Wear tightly fitting goggles in a dusty environment.
Hygiene Measures: Avoid contact with skin, eyes, & personal clothing. Do not contaminate tobacco products. Wash hands thoroughly before eating.

Exposure Limit: Particulates (not otherwise regulated) with the following generic exposure limits:
OSHA PEL: 15 mg/m³ (total dust), 5 mg/m³ (respirable fraction)

Personal Protective Equipment:

Respiratory Protection: Wear a NIOSH approved air-purifying respirator when needed to maintain dust exposures below the limits found in Section 2. Series 100 or HEPA filters are recommended. NOTE: A supplied air respirator or self-contained breathing apparatus (SCBA) must be used to protect against thermal decomposition products.

Skin & Body Protection: Wear full length clothes to prevent skin contact. Launder on a routine basis. Do not bring work clothes home.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Skived Films, Rods, Sheets, Tubes, Molded/Machined Parts
Color: Not applicable
Odor: Not applicable
Boiling Point/Range: Not applicable
Melting Point/Range: Not applicable
Flash Point (°F): Not applicable
Vapor Pressure: Not applicable
Vapor Density: Not applicable
Solubility in Water: Insoluble
Solubility in Other Solvents: Insoluble in all common solvents
Physical State: Solid

SECTION 10: STABILITY AND REACTIVITY

Stability: Decomposes in open air or in nitrogen above 400C
Conditions to Avoid: To avoid thermal decomposition, do not overheat.
Materials to Avoid: Reacts with molten alkali metals and finely divided magnesium and aluminum at temperatures above 425C.

Hazardous Decomposition: Thermal decomposition of this product (at temperatures above 300C) will generate hydrogen fluoride, which is corrosive.
Polymerization: None under normal processing.
SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity and Skin Designation

<table>
<thead>
<tr>
<th>Components</th>
<th>NIOSH – Selected LD50s &amp; LC50s</th>
<th>ACGIH 2000 – Skin Absorption Designation</th>
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<td>PTFE</td>
<td>=45 mg/m³ inhalation LC50</td>
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<tr>
<td>9002-84-0</td>
<td>Rat 30 min</td>
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<tr>
<td>Polyimide</td>
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<td>No Data Available</td>
</tr>
<tr>
<td>150339-35-8</td>
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</tr>
</tbody>
</table>

Chronic Toxicity

Carcinogenic Effects: Tetrafluoroethylene is known in the State of California to cause cancer.
Mutagenic Effects: No data is available on the product itself.
Reproductive toxicity: No data is available on the product itself.

Carcinogenic Status

<table>
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<tr>
<th>Components</th>
<th>IARC Carcinogens</th>
<th>ACGIH 1999 Carcinogens</th>
<th>OSHA Select Carcinogens</th>
<th>NTP Eight Report Known Carcinogens</th>
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<td>9002-84-0</td>
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<td>Polyimide</td>
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<td></td>
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Restricted or Prohibited in: This product complies with EU RoHS.

Electrical Equipment (2002/95/EC)

SECTION 12: ECOLOGICAL INFORMATION

Mobility: This product is insoluble and sinks in water.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste from residues/unused products: Dispose of in accordance with federal, state, & local regulations. This product is not a hazardous waste under RCRA, 40CFR261 in its original form. If this product is mixed with other materials and/or physically changed, it should be evaluated to assure that the insoluble and sinks in water.

SECTION 14: TRANSPORT INFORMATION

U.S. Dept. of Transportation DOT – Substances from 49CFR172.101

DOT Classification: Not Regulated

Air Transport ICAO/IATA

DOT Classification: Not Regulated
SECTION 15: REGULATORY INFORMATION

Clean Air Act Regulations

<table>
<thead>
<tr>
<th>Components (CAS#)</th>
<th>Accidental Release Prevention - Flammable Substances</th>
<th>Accidental Release Prevention - Toxic Substances</th>
<th>1990 Hazardous Air Pollutants</th>
<th>Section 302 EHS &amp; TPQs</th>
<th>Section 313 Emission Reporting</th>
<th>Section 302 Hazardous Substances</th>
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<tbody>
<tr>
<td>PTFE 9002-84-0</td>
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Chemical Inventories Status

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<tr>
<th>Components (CAS#)</th>
<th>DSL Canada</th>
<th>TSCA United States</th>
<th>EINECS Europe</th>
<th>JENCS Japan</th>
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States Right to Know Lists

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<th>Components (CAS#)</th>
<th>New Jersey Right to Know List</th>
<th>Pennsylvania Right to Know List</th>
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TSCA & CERCLA/SARA Regulations

SARA Classification: Not Classified

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<th>TSCA – Sec. 5(a)(2) – Chemicals with SNUR</th>
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<td>Polyimide 150339-35-8</td>
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California Prop 65 Regulations

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<th>Components (CAS#)</th>
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<tr>
<td>Polyimide 150339-35-8</td>
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SECTION 16: OTHER INFORMATION

Additional Advice: Consult your supplier if the material is to be used for special applications such as in the food industry or for hygiene, medical or surgical end use.

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--END OF MSDS--