Section 1 – Product & Company Identification

Manufacturer: Swagelok Company  
29495 F.A. Lennon Dr.  
Solon, Ohio 44139  
USA  
Information Phone: (440) 349-5600  
Emergency Phone: (440) 349-5970  
Product Class: Lubricant  
Product Code: N/A  
Trade Name: Blue Goop®

Section 2 - Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>CAS #</th>
<th>EINECS* #</th>
<th>Ingredients</th>
<th>Weight %</th>
<th>PEL (Time-Weighted Average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8001-79-4</td>
<td>232-293-8</td>
<td>Castor Oil</td>
<td>40-70%</td>
<td>Not Available</td>
</tr>
<tr>
<td>9002-84-0</td>
<td>N/A</td>
<td>Polytetrafluoroethylene</td>
<td>30-60%</td>
<td>U.S.: Not Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-hazardous ingredients</td>
<td>3-7%</td>
<td>Canada: Not Applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>E.C.: Not Determined</td>
</tr>
</tbody>
</table>

*EINECS - European Inventory of Existing Commercial Substances

Section 3 - Hazards Identification

Health Hazards
Possible irritation to eyes. Castor oil is a laxative and can cause severe stomach cramps and diarrhea if ingested.  
\[LD_{50}/LC_{50}: Not Available\]  
Potential chronic exposure effects – see Section 11.

Section 4 – First Aid Measures

First Aid - Inhalation  
Unlikely to be inhaled

First Aid - Skin  
Wash thoroughly with soap and water. If severe irritation develops, seek medical attention

First Aid - Eyes  
Rinse thoroughly with water for 15-30 minutes, seek medical attention. Do not rub eyes

First Aid - Ingestion  
Seek medical attention immediately. Do not induce vomiting

Medical Information  
Inhaling fumes of decomposition products can cause temporary influenza-like symptoms which are described as "polymer fume fever." Symptoms include fever, cough, and malaise
### Section 5 - Firefighting Measures

Flashpoint – Unknown  
LEL – Unknown  
UEL – Unknown  

**Extinguishing Media**  
Use CO₂, or foam extinguishing media

**Additional Information**  
May decompose above 545°F/285°C to produce carbon monoxide, carbon dioxide, oxides of nitrogen, and acrolein

### Section 6 - Accidental Release Measures

Steps to be taken in case material is released or spilled:  
Remove all ignition sources and open flames. Contain spill immediately. Do not allow spill to enter open sewers or waterway. Wear appropriate personal protective equipment. Place material in appropriate containers.

### Section 7 - Handling and Storage

Precautions to be taken in handling and storing:  
- Store in closed containers in well-protected area away from moisture, heat, sparks, flames or oxidizing materials  
- Do not transfer to unmarked containers  
- Have properly maintained fire extinguishers readily available

### Section 8 - Exposure Controls and Personal Protection

- **Hand Protection**  
  Hand protection is recommended to minimize exposure

- **Eye Protection**  
  Use protective eye wear if exposure is likely

- **Skin Protection**  
  Wash hands after use

- **Respiratory Protection**  
  Respiratory protection is not necessary

- **Work/Hygienic Practices**  
  As with any product, proper hygiene practices is recommended when working with this product. Do not eat, drink, or smoke while handling

### Section 9 – Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Paste-like</td>
</tr>
<tr>
<td>Color</td>
<td>Cobalt Blue</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>pH</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Solubility</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Volatiles (by volume)</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Volatiles (by weight)</td>
<td>Not Determined</td>
</tr>
<tr>
<td>V.O.C. Content</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Density</td>
<td>1.3 gm/cm³</td>
</tr>
</tbody>
</table>
Section 10 – Stability and Reactivity

Chemical Stability under Normal Conditions
Stable

Conditions to Avoid (Stability & Polymerization)
High Temperatures

Incompatible Materials
Reducing agents and oxidizing agents such as oxygen, chlorine, and fluorine

Hazardous Decomposition Products
May release carbon monoxide, carbon dioxide, acrolein, and oxides of nitrogen

Section 11 – Toxicological Information

Acute toxic properties: Eye irritant.
Prolonged Health effects: Unlikely to cause prolonged ill effects.
Sensitization: Not Determined
Teratogenicity: Not Determined
Reproductive Toxicity: Not Determined
Synergistic Products: Not Determined
Carcinogenicity: Listed ingredients are not suspected carcinogens according to NTP, IARC, NIOSH and OSHA

Section 12 - Ecological Information

Environmental Releases
Do not allow spills to enter sewers or waterways. Comply with all applicable local, state, and federal regulations.
Mobility: Paste-like viscosity
Degradability: Not determined
Accumulation: None known
Short/Long term effects on ecotoxicity: None known

Section 13 - Disposal Considerations

Waste Disposal Methods
Unused product is not considered a hazardous waste in the United States. Dispose of responsibly
European Community (EC) considerations: Use appropriate wastecodes based on ingredients

Section 14 - Transport Information

Proper Shipping Name
Comply with all applicable local, state, and federal transportation regulations

Section 15 – Regulatory Information

United States
SARA Title III – Section 313
Not applicable
TSCA
Yes

Canada
Canadian Controlled Products
Castor Oil

Section 15 – Regulatory Information (continued)
European Community (EC)
EC Regulations
This product has been classified under CHIP-96 guidelines based on chemical content
EC Relevant risk
R: 36 - Irritating to eyes
EC Relevant safety
S: 37/39 - Wear suitable gloves and eye/face protection
S: 20 - When using, do not eat or drink
S: 62 - If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label
EC Ozone
N/A
EC Danger to terrestrial environment
None. Inert. Will sink in water (density = 1.3 gm/cm³)

Additional information
Consult country codes for specific requirements

Section 16 - Other Information

Further information
Contact your Swagelok Distributor or the contacts listed in Section 1 of this sheet

Sources of information used to compile document:
Properties of individual ingredients were used to compile this document. This Material Safety Data Sheet was designed to give the distributors and users of BLUE GOOP® information to handle and use the product in a responsible manner

Preparation Data:
Environmental and Safety Department
(440) 349-5955
December 2006

This information must be included on all MSDSs that are copied and distributed for this material.