SAFETY DATA SHEET

Section 1. IDENTIFICATION

Product Identifier

Product Name  GASOLIA® PLS 2 Pipe Thread and Gasket Sealer

Other means of Identification

Product Code  PB04, PB 16, PL 28

Recommended Use  Pipe Thread Sealant.

Recommended Restrictions  None Known.

Manufacturer

Company Name  Federal Process Corporation
Address  4520 Richmond Road
          Cleveland OH 44128
Telephone  1-800-846-7325

Emergency Telephone Number:  Call Chemtrec at 1-800-424-9300

Section 2. HAZARDS IDENTIFICATION

Classification:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable</td>
<td>Category 3</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

PHYSICAL STATE:  Liquid

Signal Word:  Warning

Hazard Statements:

H226 - Flammable liquid and vapor.
H302 – Harmful if swallowed
H319 – Causes serious eye irritation.
H317 – May cause an allergic skin reaction
Precautionary Statements:


Response: P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P301 + P331 + P310 – IF SWALLOWED: Do NOT induce vomiting. Immediately call POISON CENTER or doctor/physician. P337 + P313 – If eye irritation persists: Get medical advice/attention. P332 + P313 – If skin irritation or rash occurs: Get medical advice/attention.

Disposal: P501- Dispose of contents/container to an approved waste disposal plant.

Other Hazards: Toxic to aquatic life with long lasting effects.

Unknown Acute Toxicity: 2% of the mixture consists of ingredient(s) of unknown toxicity.

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Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol</td>
<td>67-63-0</td>
<td>&lt;8.0</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>111-76-2</td>
<td>&lt;5.0</td>
</tr>
</tbody>
</table>

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Section 4. FIRST AID MEASURES

First Aid Measures:

Eye Contact
Rinse thoroughly with plenty of water, for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

Skin Contact
If skin irritation occurs, rinse affected area with water. If skin irritation or rash occurs: Get medical advice/attention.

Inhalation
Remove to fresh air. If signs/symptoms continue, get medical attention. Give oxygen or artificial respiration as needed.
Ingestion

Do NOT induce vomiting. Get medical attention immediately. Rinse mouth with water. Never give anything by mouth to an unconscious individual.

Most Important Symptoms and effects:

Symptoms

Direct contact with eyes may cause temporary irritation. Do NOT ingest.

Section 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Use foam, dry chemical, carbon dioxide or water fog.

Unsuitable Extinguishing Media:

Not determined.

Specific Hazards Arising from the Chemical:

Carbon oxides expected to be the primary hazardous combustion product.

Protective Equipment and Precautions for Firefighters:

As in any fire, wear self-contained breathing apparatus and other protective clothing (approved or equivalent) and full protective gear.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Personal Precautions:

Use personal protective equipment as required. Keep unnecessary personnel away.

Methods and Material for Containment and Cleaning Up:

Methods for Containment:

Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up:

Keep in suitable, closed containers for disposal.

Section 7. HANDLING AND STORAGE

Precautions for Safe Handling:

Advice on Safe Handling:

Avoid breathing vapors or mists. Contaminated work-clothing should not be allowed out of the workplace.
Conditions for Safe Storage, including Any Incompatibilities:

Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near heat, sparks, or open flames. KEEP OUT OF REACH OF CHILDREN.

Incompatible Materials: None known based on information supplied.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TWA</th>
<th>ACGIH STEL</th>
<th>OSHA TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol (CAS 67-63-0)</td>
<td>200 ppm</td>
<td>400 ppm</td>
<td>400 ppm</td>
</tr>
<tr>
<td>2 butoxyethanol (CAS 111-76-2)</td>
<td>20 ppm</td>
<td>200 mgm/g</td>
<td>x</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls:

Engineering Controls: Apply technical measures to comply with the occupational exposure limits.

Individual Protection Measures, such as Personal Protective Equipment:

Eye/Face Protection: Avoid contact with eyes.

Skin and Body Protection: No protective equipment is needed under normal use conditions.

Respiratory Protection: Ensure adequate ventilation, especially in confined areas. If confined in poorly ventilated areas use NIOSH/MSHA

General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice. Wash exposed areas thoroughly before eating, drinking, smoking or leaving work area. Launder contaminated clothing before reusing.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State: Liquid.
Appearance: Viscous liquid.
Odor: Mild.
Odor Threshold: Not available.
Color: Dark Grey.

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Flash Point</td>
<td>98F (37C) Closed Cup.</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>n/a-liquid</td>
</tr>
<tr>
<td>Upper Flammability Limit</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.44</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>None.</td>
</tr>
<tr>
<td>Solubility in other Solvents</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Partition Coefficient (n-octanol/water)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

**Section 10. STABILITY AND REACTIVITY**

Reactivity: Not reactive under normal conditions.
Chemical Stability: Stable under recommended storage conditions.
Possibility of Hazardous Reactions: None under normal processing.
Conditions to Avoid: Keep out of reach of children.
Incompatible Materials: None known.
Hazardous Decomposition Products: Oxides of carbon.
Section 11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure:

Eye Contact: Causes serious eye irritation.
Skin Contact: May cause an allergic skin reaction.
Inhalation: Avoid breathing vapors or mists.
Ingestion: Do not taste or swallow.

Component Information:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol (67-63-0)</td>
<td>4,396 mg/kg (Rat)</td>
<td>12,870 mg/kg (Rabbit)</td>
<td>19,600 ppm (Rat)</td>
</tr>
<tr>
<td>2 butoxyethanol (111-76-2)</td>
<td>1,300 mg/g (Rat)</td>
<td>&gt;2,000 mg/g (Rat)</td>
<td>&gt;4.9mg/L (Rat, 3h)</td>
</tr>
<tr>
<td></td>
<td>1,400 mg/g (Guinea Pig)</td>
<td>&gt;2,000 mg/g (Guinea Pig)</td>
<td>&gt;3.4 mg/L (Guinea Pig, 1h)</td>
</tr>
</tbody>
</table>

Information on physical, chemical and toxicological effects:

Symptoms: Please section 4 of this SDS for symptoms.

Delayed and Immediate Effects as Well as Chronic Effects From Short and Long Term Exposure:

Sensitization: May cause an allergic skin reaction.
Carcinogenicity: Not classifiable as a human carcinogen.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol (67-63-0)</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>2 butoxyethanol (111-76-2)</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
</tr>
</tbody>
</table>

Legend
IARC (International Agency for Research on Cancer).
Group 3 IARC components are “not classifiable as human carcinogens”.
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Numerical Measures of Toxicity:

Not Determined.

Section 12. ECOLOGICAL INFORMATION
Ecotoxicity:

Toxic to aquatic life with lasting effects.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to Microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol (67-63-0)</td>
<td>EC50/72 hours Scenedesmus subspicatus &gt;1,000 mg/L</td>
<td>LC50/96 hours Pimephales promelas: 9,640 mg/L</td>
<td>EC50/3 hours Activated sludge &gt;1,000 mg/L</td>
<td>N/A</td>
</tr>
<tr>
<td>2 butoxyethanol (111-76-2)</td>
<td>EC50/Algae Pseudokirchneriella subcapitata 72h 1,840 mg/L</td>
<td>LC50 96 hours Oncorhynchus mykiss, 1,474 mg/L</td>
<td>N/D</td>
<td>N/D</td>
</tr>
</tbody>
</table>

Persistence/Degradability: Not determined.

Bioaccumulation: Not determined.

Mobility: Not determined.

Other Adverse Effects: Not determined.

Section 13. DISPOSAL CONSIDERATIONS

Waste Treatment Method:

Disposal of Wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging: Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. TRANSPORT INFORMATION

DOT: Consumer Commodity ORM-D.

PROPER SHIPPING NAME: Consumer Commodity ORM-D.
Section 15. REGULATORY INFORMATION

International Inventories: Not determined.


SARA Title 313: Not determined.

U.S. State Regulations: Not determined.

U.S Right-to-Know Regulations: Not determined.

Section 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA: Health Hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>0</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS Health Hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>0</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Issue Date: 1st March 2014
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End of Safety Data Sheet