Safety Data Sheet


1. Material / Company Identification

<table>
<thead>
<tr>
<th>PRODUCT NAME</th>
<th>Functional WA-24</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEMICAL FAMILY</td>
<td>Lubricant Additive</td>
</tr>
<tr>
<td>PRODUCT USE</td>
<td>Waylube additive for mineral oil</td>
</tr>
<tr>
<td>CAS REGISTRY NUMBER</td>
<td>Mixture</td>
</tr>
<tr>
<td>REVISION DATE</td>
<td>February 14, 2012</td>
</tr>
</tbody>
</table>

Manufacturer/Supplier

Functional Products Inc.
8282 Bavaria Road
Macedonia, Ohio 44056, USA
Tel: 330-963-3060 Fax: 330-963-3322

2. Hazards Identification

Eyes
May be irritating to eyes.

Skin
May be irritating to the skin. Prolonged or repeated contact with skin may cause mild irritation and possible dermatitis.

Ingestion
Low toxicity on ingestion.

Inhalation
If heated, sprayed or misted, this product may cause chemical pneumonitis.

Carcinogenicity
Not listed as a carcinogen.

3. Composition

<table>
<thead>
<tr>
<th>Substance/Preparation</th>
<th>% (w/w)</th>
<th>CAS #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkylene Ester Sulfide</td>
<td>30 – 60</td>
<td>Proprietary</td>
</tr>
<tr>
<td>Carboxylate Salt</td>
<td>10 – 20</td>
<td>Proprietary</td>
</tr>
<tr>
<td>Amine Phosphate</td>
<td>1 – 5</td>
<td>Proprietary</td>
</tr>
<tr>
<td>Petroleum Oil</td>
<td>20 – 40</td>
<td>64742-58-1</td>
</tr>
</tbody>
</table>
4. **First Aid Measures**

**Inhalation:** If inhaled, remove to fresh air. Get medical attention. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Ingestion:** If affected person is conscious, give plenty of water to drink. Never give anything to drink to an unconscious person. Get medical attention if symptoms appear. Do not induce vomiting.

**Skin Contact:** Wash with soap and water. Get medical attention if irritation develops.

**Eye Contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

5. **Fire Fighting Measures**

**Flash Point:** > 135°C / 275°F

**Upper Flammable Limit:** Not determined.

**Lower Flammable Limit:** Not determined.

**Extinguishing Media:** In case of fire use water spray (fog), foam or dry chemicals.

**Hazardous Combustion Products:** Oxides of Carbon, Sulfur, Phosphorus, Nitrogen, Smoke and Fumes.

**Fire Fighting Procedures:** Recommended wearing self-contained breathing apparatus and full turnout gear.

6. **Accidental Release Measures**

**Personal Precautions:** Personal Protective Equipment must be worn. Keep unnecessary personnel away.

**Environmental Precautions and Clean Up Methods:** Spills should be contained, absorbed and containerized for disposal in accord with local, state and federal regulations. Prevent entry to sewers and water-way.

7. **Handling and Storage**

**Handling:** Wash thoroughly after handling.

**Storage:** Keep container tightly closed, in cool, well ventilated area.
8. Exposure Controls / Personal Protection

Ventilation Use with adequate ventilation.
Hands Use chemical resistant, impervious gloves.
Eyes Use safety glasses, goggles or face mask.
Clothing Long sleeve shirt is recommended.
Respiratory Use appropriate respiratory protection if there is any potential for uncontrolled release or exposure levels are not known.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
<tr>
<td>Odor</td>
<td>sulfurous odor</td>
</tr>
<tr>
<td>Density</td>
<td>0.94 g / cm³ at 15 deg C (59 Deg F)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>N / A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>&lt; 0.1</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>&lt; 1</td>
</tr>
</tbody>
</table>

10. Reactivity and Stability

Stability The product is stable.
Incompatibility Strong oxidants and reducing agents.
Conditions to Avoid Not known.

11. Toxicological Information

Eye Irritation Not expected to cause eye irritation based on data from components or similar materials.
Skin Irritation Not expected to be a primary skin irritant based on data from components or similar materials.
Respiratory Irritation If material is misted or vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract based on components or similar materials. Exposure to hydrogen sulfide can cause temporary loss of sense of smell and irritation of the eyes, nose or throat.
Dermal Toxicity The LD50 in rabbits is >2000mg/Kg based on data from similar materials.
Inhalation Toxicity Not expected to be an inhalation hazard at ambient temperatures. Inhalation of high concentrations of vapor may cause loss of consciousness. Inhalation of lower concentrations may cause headache, dizziness or nausea.
Oral Toxicity The LD50 in rats is > 5000mg/Kg based on data from components or similar materials.
### Sensitization
Based on current information, there is no known human sensitization associated with this product.

### Mutagenicity
Experimental evidence suggests that this product do not cause mutagenesis.

### Carcinogenicity
Not classified or listed by IARC, NTP, OSHA, EU, and ACGIH.

### Teratogenity
Based on best current information, there is no known teratogenicity associated with this product.

### Reproductive Toxicity
Based on best current information, there is no known reproductive toxicity associated with this product.

### 12. Ecological Information

<table>
<thead>
<tr>
<th>Fresh Water Fish</th>
<th>The acute LC50 is &gt; 1000mg/L based on similar materials.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh Water Invertebrates</td>
<td>Not determined</td>
</tr>
<tr>
<td>Algae</td>
<td>Not determined</td>
</tr>
<tr>
<td>Salt Water Fish</td>
<td>The acute LC50 is &gt; 1000mg/L based on similar materials.</td>
</tr>
<tr>
<td>Salt Water Invertebrates</td>
<td>The acute LC50 is 10 -100 mg/L based on similar materials.</td>
</tr>
<tr>
<td>Bacteria</td>
<td>The acute EC50 is &gt; 1000 ppm based on similar materials.</td>
</tr>
</tbody>
</table>

### 13. Disposal Considerations

| Waste Disposal | Waste must be disposed of in accordance with federal, state and local environmental control regulations. |

### 14. Transportation Information

| U.S DOT BULK | Not regulated. |
| U.S. DOT NON-BULK | Not regulated. |
| IMDG CODE | Not regulated. |
| ICAO | Not regulated. |
| ADR/RID HAZARD CLASS | Not regulated. |
15. **Regulatory Information**

**U.S. TSCA INVENTORY** | Yes
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**SARA EXT. HAZ. SUBS.** | Not regulated
**SARA Section 313** | Not regulated
**CERCLA** | Not regulated
**CAL. PROP. 65** | Not regulated
**RoHS** | Not regulated
**CANADA** | All components are listed on DSL inventory. WHMIS – not controlled.
**EUROPE** | All components are listed on the EINECS.
**KOREA** | All components are listed on ECI inventory.

16. **OTHER INFORMATION**

**NFPA CODE** | Health: 2    Fire: 1    Reactivity: 0

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