SAFETY DATA SHEET


1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>PRODUCT NAME</th>
<th>FUNCTIONAL V – 176</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEMICAL FAMILY</td>
<td>POLYMERIC HYDROCARBON IN MINERAL OIL</td>
</tr>
<tr>
<td>PRODUCT USE</td>
<td>TACKIFIER</td>
</tr>
<tr>
<td>CAS REGISTRY NUMBER</td>
<td>MIXTURE</td>
</tr>
<tr>
<td>REVISION DATE</td>
<td>January 15, 2013</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

HAZARDOUS INGREDIENTS
THIS MATERIAL HAS NO KNOWN HAZARDS.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>SUBSTANCE/ PREPARATION</th>
<th>% (w/w)</th>
<th>CAS #</th>
</tr>
</thead>
<tbody>
<tr>
<td>PETROLEUM OIL</td>
<td>90 – 100</td>
<td>64742-58-1</td>
</tr>
<tr>
<td>POLYISOBUTYLENES</td>
<td>0 – 10</td>
<td>9003-27-4</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.

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: > 230 Deg C / 446 Deg F COC

UPPER FLAMMABLE LIMIT: Not determined.

LOWER FLAMMABLE LIMIT: Not determined.

EXTINGUISHING MEDIA In case of fire, use water spray (fog), foam or dry chemicals.

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 SYSTEM: Use appropriate respiratory protection if there is the potential

**OCCUPATIONAL EXPOSURE LIMITS**

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>OEL USA</th>
<th>OEL CANADA</th>
<th>OEL EUROPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PETROLEUM OIL</td>
<td>TWA: 5 STEL: 10 (mg / m3) from ACGIH (TLV)</td>
<td>TWA: 5 STEL 10 (mg / m3)</td>
<td>TWA: 5 (mg / m3) from EH40 (UK)</td>
</tr>
<tr>
<td></td>
<td>TWA: 5 (mg / m3) from OSHA (PEL)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Tacky viscous liquid
COLOR: Yellow
ODOR: Mild petroleum odor.
DENSITY: 0.85 g / cm³ at 15 deg C (59 Deg F)
SOLUBILITY: Insoluble in water.
BOILING POINT: 700 – 800 F.
VAPOR PRESSURE: Nil
EVAPORATION RATE: < 1

10. STABILITY AND REACTIVITY

STABILITY: The product is stable.
INCOMPATIBILITY: Strong oxidants and reducing agents.
CONDITIONS TO AVOID: Not known.

11. TOXICOLOGICAL INFORMATION

ACUTE EXPOSURE

ORAL TOXICITY LD 50 in rats > 5000 mg/kg.
EYE IRRITATION Not known. Presumed to be mild irritant.
SKIN IRRITATION Not known to be primary skin irritant.
DERMAL TOXICITY LD 50 in rabbits > 2000 mg/kg.
INHALATION TOXICITY No data available to indicate product or components maybe a toxic inhalation hazard.

CHRONIC EXPOSURE

CHRONIC TOXICITY No data available to indicate product or components present at > 1% are chronic health hazards.
CARCINOGENICITY Not classified or listed by IARC, NTP, OSHA, EU, and ACGIH.
TERATOGENICITY No data available to indicate product or components present at >0.1% may cause birth defects.
REPRODUCTIVE TOXICITY No data available to indicate product or components may cause reproductive toxicity.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS Not available
ENVIRONMENTAL FATE Not available
FISH TOXICITY The acute LC50 is > 1000 ppm.
ALGAE TOXICITY The acute EC50 is 10 – 100 ppm.
BACTERIA TOXICITY The acute EC50 is > 1000 ppm.
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
Other TSCA Reg. No
SARA EXT. HAZ. SUBS. No
SARA Section 313 No
CERCLA No
CAL. PROP. 65 No
JAPAN MITI All components are listed on MITI inventory.
AUSTRALIA All components are listed on AICS inventory.
EUROPE Petroleum oil is listed on EINECS inventory.
Polymers are exempt from EINECS inventory under the polymer exemption.
CHINA All components are listed on China’s inventory.
CANADA All components are listed on DSL inventory.
WHMIS – not controlled.
KOREA All components are in compliance in Korea.
NEW ZEALAND All components are listed on NZIoC inventory.
PHILIPPINES All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act Of 1990 (R.A. 6969).

16. OTHER INFORMATION

NFPA CODE Health: 1  Fire: 1  Reactivity: 0
HMIS CODE Health: 1  Fire: 1  Reactivity: 0

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