SAFETY DATA SHEET


1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>PRODUCT NAME</th>
<th>FUNCTIONAL V – 105</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEMICAL FAMILY</td>
<td>ETHYLENE-PROPYLENE TERPOLYMER</td>
</tr>
<tr>
<td>PRODUCT USE</td>
<td>V. I. IMPROVER</td>
</tr>
<tr>
<td>CAS REGISTRY NUMBER</td>
<td>25038-36-2</td>
</tr>
<tr>
<td>REVISION DATE</td>
<td>January 18, 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: Solid or dust may cause irritation or corneal injury due to mechanical action.

SKIN: Non-irritating to skin.

INGESTION: No hazards are anticipated from ingestion.

INHALATION: Exposure to ethylidene norbornene vapors may cause irritation of the respiratory tract, experienced by chest pains, headache or dizziness.

CARCINOGENICITY: None of the components present in this material at concentration equal or greater than 0.1% are listed by IARC, NTP, OSHA, or ACGIH as a carcinogen.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>SUBSTANCE/ PREPARATION</th>
<th>% (w/w)</th>
<th>CAS #</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYLENE-PROPYLENE COPOLYMER</td>
<td>100</td>
<td>25038-36-2</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:** No specific intervention is indicated, as compound is not likely to be hazardous by ingestion. Get medical attention if necessary.

**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:** > 240°C / 464°F

**UPPER FLAMMABLE LIMIT:** Not determined.

**LOWER FLAMMABLE LIMIT:** Not determined.

**EXTINGUISHING MEDIA:** In case of fire, use water, foam dry chemicals or CO2.

**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**

Recover undamaged and minimally contaminated material for reuse and reclamation. Shovel or sweep up.

7. **HANDLING AND STORAGE**

**HANDLING:** Avoid contact with eyes and skin. Wash thoroughly after handling. Avoid breathing vapor or dust. Keep away from heat, sparks and flames.

**STORAGE:** Keep container tightly closed, in cool, well-ventilated and dry area.

8. **EXPOSURE CONTROLS / PERSONAL PROTECTION**

**VENTILATION:** Use with adequate ventilation to control fumes.

**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 any potential for uncontrolled release or exposure levels are not known.
### OCCUPATIONAL EXPOSURE LIMITS

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>PEL (OSHA)</th>
<th>TLV (ACGIH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYDROCARBON RUBBER (PARTICULATES)</td>
<td>15 mg/m³, 8 Hr. TWA, total dust 5 mg/m³, 8 Hr. TWA respirable dust</td>
<td></td>
</tr>
<tr>
<td>ETHYLIDENE NORBORNERENE</td>
<td>None Established</td>
<td>5 ppm, 25 mg/m³</td>
</tr>
<tr>
<td>POLYETHYLENE DUST</td>
<td>None Established</td>
<td>None Established</td>
</tr>
</tbody>
</table>

### 9. PHYSICAL AND CHEMICAL PROPERTIES

- **PHYSICAL STATE:** pellets, bales or rods
- **COLOR:** translucent white
- **ODOR:** Residual odor of ethylidene norbornene
- **SPECIFIC GRAVITY:** 0.84 – 0.90
- **SOLUBILITY:** Insoluble in water.
- **MELTING POINT:** N/A

### 10. STABILITY AND REACTIVITY

- **STABILITY:** The product is stable.
- **INCOMPATIBILITY:** None reasonably foreseeable.
- **CONDITIONS TO AVOID:** Temperatures above 240°C (464°F) will release combustible gases.
- **HAZARDOUS DECOMPOSITION:** CO, CO₂, organic oxidation products.
- **POLYMERIZATION:** Polymerization will not occur.

### 11. TOXICOLOGICAL INFORMATION

- **ANIMAL DATA**
  This product contains traces of ethylidene norbornene, which is moderately toxic with 4-hour LC50 of 732 ppm (inhalation, mouse).
- **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
- **FISH TOXICITY**
  Not available
- **ALGAE TOXICITY**
  Not available
- **BACTERIA TOXICITY**
  Not available
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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