SAFETY DATA SHEET

According to REACH, Regulation (EC) No 1907/2006 and amendments

Section 1: PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Name</th>
<th>FUNCTIONAL CA – 441</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Family</td>
<td>Solution of Esters in White Mineral Oil</td>
</tr>
<tr>
<td>Product Uses</td>
<td>Food Grade Coupling Agent</td>
</tr>
<tr>
<td>CAS Registry Number</td>
<td>Mixture</td>
</tr>
<tr>
<td>Revision Date</td>
<td>June 6, 2014</td>
</tr>
</tbody>
</table>

Manufacturer: Functional Products, Inc.
8282 Bavaria Road
Macedonia, Ohio 44056, USA
Tel (USA): + 1 330-963-3060
Fax (USA): + 1 330-963-3322
E-mail: SDS@functionalproducts.com

European Supplier: Lumar Quimica S.L.U.
Milanesat, 25-27, 4t. 1a.
08017 Barcelona
Spain
Tel: + 34 93 594 75 00
Fax: + 34 93 594 75 01
E-mail: lumar@lumarquimica.com

Emergency Phone Numbers:
United States: + 330-963-3060 (8:00AM-5:00PM EST)
Europe: + 34 93 594 75 00 (08:00 -13:00 14:00-17:00)
France (ORFILA): + 33 (0)1 45 42 59 59

Section 2: HAZARDS IDENTIFICATION

This material has no known hazards.

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

According to Regulation (EC) No 1272/2008 [CLP]
This is not a hazardous substance or mixture according Regulation (EC) No. 1272/2008.
No need for classification according to GHS criteria for this product.
According to Directive 67/548/EEC or 1999/45/EC
This is not a hazardous substance of mixture according to EC-directives 67/548/EEC or 1999/45/EC.
This material has no known hazards, if the regulations/notes for storage and handling are considered and followed.

2.2 LABEL ELEMENTS

Globally Harmonized System, EU (GHS)
The product does not require a hazard warning label in accordance with GHS criteria.

According to Regulation (EC) No. 1272/2008 [CLP]
The product does not require a hazard warning label in accordance with Regulation (EC) No. 1272/2008.

According to Directive 67/548/EEC or 1999/45/EC
European Economic Community (EEC) Directives
The product does not require a hazardous warning label in accordance with EEC Directives.

2.3 OTHER ELEMENTS

If it is applicable, information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

According to Regulation (EC) No. 1272/2008 [CLP]
This material has no known hazards

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance/Preparation</th>
<th>(% w/w)</th>
<th>CAS #</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Mineral Oil</td>
<td>0 - 50</td>
<td>8042-47-5</td>
</tr>
<tr>
<td>Food Grade Esters</td>
<td>50 - 100</td>
<td>Mixture</td>
</tr>
</tbody>
</table>

Section 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.

Section 5: FIRE-FIGHTING MEASURES
Flash Point: $> 135^\circ C / 275^\circ F$
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, smoke and fumes.
Fire-Fighting Procedures: Recommended wearing self-contained breathing apparatus and full turnout gear.

**Section 6: ACCIDENTAL RELEASE MEASURES**

<table>
<thead>
<tr>
<th>Personal Precautions:</th>
<th>Personal Protective Equipment must be worn. Keep unnecessary personnel away.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Precautions And Clean Up Methods:</td>
<td>Spills should be contained, absorbed and containerized for disposal in accord with local, state and federal regulations. Prevent entry to sewers and water-way.</td>
</tr>
</tbody>
</table>

**Section 7: HANDLING AND STORAGE**

<table>
<thead>
<tr>
<th>Handling:</th>
<th>Wash thoroughly after handling.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage:</td>
<td>Keep container tightly closed, in cool, well-ventilated area.</td>
</tr>
</tbody>
</table>

**Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

<table>
<thead>
<tr>
<th>Ventilation:</th>
<th>Use with adequate ventilation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hands:</td>
<td>Use chemical resistant, impervious gloves.</td>
</tr>
<tr>
<td>Eyes:</td>
<td>Use safety glasses, goggles or face mask.</td>
</tr>
<tr>
<td>Clothing:</td>
<td>Long sleeve shirt is recommended.</td>
</tr>
<tr>
<td>Respiratory System:</td>
<td>Use appropriate respiratory protection if there is the potential for inhalation.</td>
</tr>
</tbody>
</table>

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Physical State:</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>Water White to Pale Yellow</td>
</tr>
<tr>
<td>Odor:</td>
<td>Mild petroleum odor.</td>
</tr>
<tr>
<td>Density:</td>
<td>$0.92 \text{ g/cm}^3$ at $15 \text{ deg C (59 Deg F} \</td>
</tr>
<tr>
<td>Solubility:</td>
<td>Insoluble in water.</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>N / A</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>$&lt; 0.1$</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>$&lt; 1$</td>
</tr>
</tbody>
</table>
Section 10: STABILITY AND REACTIVITY

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

Section 11: TOXICOLOGICAL INFORMATION

ACUTE EXPOSURE

Oral Toxicity: No data available
Eye Irritation: No data available
Skin Irritation: No data available
Dermal Toxicity: No data available
Inhalation Toxicity: No data available

CHRONIC EXPOSURE

Chronic Toxicity: No data available
Carcinogenicity: No data available
Teratogenicity: No data available
Reproductive Toxicity: No data available

Section 12: ECOLOGICAL INFORMATION

Environmental Hazards: No data available
Environmental Fate: No data available
Fish Toxicity: No data available
Algae Toxicity: No data available
Bacteria Toxicity: No data available

Section 13: DISPOSAL CONSIDERATIONS

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

Section 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
Section 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: Listed - MITI
Australia: Listed - AICS
Europe: Listed - EINECS
Polymers are exempt from EINECS inventory under the polymer exemption.
China Listed - IECSC
Canada Listed - DHL
Korea Listed - KECI
New Zealand Listed - NZIoC
Philippines Listed - PICCS

Section 16: OTHER INFORMATION

NFPA Code Health: 1  Fire: 1  Reactivity: 0

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