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 V-191</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Family</td>
<td>Polymer Emulsion in Water</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>June 25, 2015</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) N° 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>Polymer</td>
<td>55 – 65</td>
<td>Proprietary</td>
</tr>
<tr>
<td>Water</td>
<td>35 – 45</td>
<td>7732-18-5</td>
</tr>
<tr>
<td>Ammonium Hydroxide</td>
<td>0 – 1</td>
<td>1336-21-6</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: Non-flammable liquid
Upper Flammable Limit: Not determined.
Lower Flammable Limit: Not determined.
Extinguishing Media: N / A
Fire Fighting Procedures: N / A

Section 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 neutralized with acid, contained, absorbed and containerized for disposal in accord with local, state and federal regulations. Prevent entry to sewers and water-way.

Section 7: HANDLING AND STORAGE

Handling: Use in area with adequate ventilation. Wash thoroughly after handling.
Storage: Avoid freezing or boiling temperatures.

Section 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 mask to prevent inhalation when handling.

Occupational Exposure Limits: No exposure limits have been established.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Color: Milky, white
Odor: Slight Ammonia
Specific Gravity: 0.946
Solubility: Miscible in water
Boiling Point: No data available
Vapor Pressure: No data available
Evaporation Rate: No data available

Section 10: STABILITY AND REACTIVITY

Stability: The product is stable.
Incompatibility: Acids, metal salts and solvents
Conditions to avoid: Extremes of temperature and direct sunlight. Keep from freezing.

Hazardous Decomposition
Products: Ammonia, Oxides of Carbon and Nitrogen and smoke are possible.

Section 11: TOXICOLOGICAL INFORMATION

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 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
Bacteria Toxicity: No data available
Fish Toxicity: No data available
Algae Toxicity: No data available

Section 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose as waste 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 - DSL  
WHMIS – not controlled.  
Korea: Listed - KECI  
New Zealand: Listed - NZIoC  
Philippines: Listed – PICCS

Section 16: OTHER INFORMATION

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