SAFETY DATA SHEET


Section 1: PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Functional Cl-427</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Family</td>
<td>Corrosion inhibitor / anti-wear additive</td>
</tr>
<tr>
<td>Product Use</td>
<td>Lubricant Additive</td>
</tr>
<tr>
<td>CAS Registry Number</td>
<td>80939-62-4</td>
</tr>
<tr>
<td>Revision Date</td>
<td>June 15, 2017</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

Warning

Eye Irritation: Category 2A – Causes serious eye irritation
Skin Irritation: Category 2 – Causes skin irritation
Aquatic Chronic Category 2 - Toxic to aquatic life with long lasting effects
2.2 LABEL ELEMENTS

Symbols:

- Warning

Hazard statements:
- H315 – Causes skin irritation
- H319 – Causes serious eye irritation
- H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements:
- P264 - Wash hands thoroughly after handling
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P501 - Dispose of contents/container in accordance with applicable regulations

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>Amine, C11-C14 branched alkyl, hexyl phosphates</td>
<td>100</td>
<td>80939-62-4</td>
</tr>
</tbody>
</table>

Section 4: FIRST-AID MEASURES

Inhalation: Remove to fresh air. In case of irritation to the respiratory system or mucous membranes, get medical attention. In case of prolonged exposure, get medical attention.

Ingestion: If affected person is conscious, give plenty of water to drink. Do NOT induce vomiting. Give victim water or milk. Call physician or poison control immediately. Never give anything by mouth to an unconscious person.

Skin Contact: Immediately wash with soap and water. Remove contaminated clothing. Seek medical attention.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention immediately.

Section 5: FIRE-FIGHTING MEASURES

Flash Point: 135º C / 275º 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.
Fire Fighting Procedures: Recommended to wear self-contained breathing apparatus and full protective gear.

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 contained, absorbed and containerized for disposal in accord with local, state and federal regulations. Do not flush into surface water, sanitary sewer or ground water system.

Section 7: HANDLING AND STORAGE

Handling: Use with adequate ventilation. Do not breathe vapors or mists. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling.
Storage: Keep container tightly closed, in cool, well ventilated area. Empty containers may retain product residue, precautions apply to empty containers.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation: Use with adequate ventilation.
Hands: Use chemical resistant, impervious gloves.
Eyes: Use chemical safety goggles and face shield.
Clothing: Chemical resistant apron or body-covering clothing.
Respiratory: Use appropriate respiratory protection if there is the potential for overexposure to fumes.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Color: Colorless to slight yellow
Odor: Amine-like
Density: 0.89 g / cm$^3$ at 15°C (59 °F)
Solubility: Insoluble in water
Boiling Point: > 195°C
PH (5% in Water/Isopropanol): 8.5

Section 10: STABILITY AND REACTIVITY

Stability: The product is stable.
Incompatibility: Strong acids, bases, oxidants and reducing agents
Conditions To Avoid: High temperatures
Section 11: TOXICOLOGICAL INFORMATION

**ACUTE EXPOSURE**

- **Oral Toxicity:** LD50 (Rat), >2000 mg/kg (OECD 401)
- **Eye Irritation:** Irritant (Rabbit), OECD 405
- **Skin Irritation:** Irritant (Rabbit), OECD 404
- **Dermal Toxicity:** LD50 (Rat), >2000 mg/kg (OECD 402); non-sensitizing
- **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:** LC50, 96hrs: 5.5 mg/L, oncorhynchus mykiss (OECD 203)
- **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:** 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

Taiwan Listed - TCSCA

<table>
<thead>
<tr>
<th>Section 16: OTHER INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFPA Code</td>
</tr>
<tr>
<td>HMIS Code</td>
</tr>
</tbody>
</table>

The information presented herein has been compiled from sources considered to be dependable and are accurate to the best of FUNCTIONAL PRODUCTS INC. knowledge at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

This safety data sheet contains information relating to safety only and does not replace any product information or product specification. Suggestions or applications are only opinions. Users are responsible for determining the suitability of this material for their own particular purpose. FUNCTIONAL PRODUCTS INC. makes no warranty whatsoever and expressly disclaims all liability for reliance thereon. Such data are offered solely for your consideration, investigation and verification.