

CLARION® Food Machinery A/W Oils



OVERVIEW



- Designed specifically for use as lubricants for food processing equipment.
- Formulated with a high purity white mineral oil and additive system for food processing applications.
- Does not contain any natural products derived from animals, nuts or genetically modified organisms (GMOs).
- Suitable for use where vegetarian and nut-free food is prepared.

FEATURES & BENEFITS



- Colorless, odorless, tasteless, non-staining lubricants that provide excellent wear, rust, and oxidation protection.
- Meet the requirements of U.S. FDA regulation 21 CFR 178.3570 for incidental food contact.
- NSF H1 registered for use in food processing plants under the jurisdiction of the USDA.
- Certified under NSF/ANSI Standards 60 and 61 (ISO 32 and 68 grades only).
- Certified as Kosher (Passover) with the Union of Orthodox Jewish Congregations of America (U).
- Certified as Halal with the Islamic Food and Nutrition Council of America (M).



Certified to
NSF/ANSI Standard
60 and 61

Clarion Food Machinery
A/W 32 and A/W 68 Oils
(ONLY)

APPLICATIONS

- General purpose lubricants for machinery that processes, packages, or transports food for human consumption.
- Recommended for medium pressure hydraulic systems and circulating systems in food processing, canning, and bottling operations. Can also be used in air line lubrication applications.
- ISO 68 and 100 grades may be used in food machinery worm gears, spur gears, and valves.

PROPERTIES



Typical Properties for CLARION® Food Machinery A/W Oils:

| ISO Grade | 32 | 46 | 68 | 100 |
|---|-------------|-------------|--------------|-------------|
| Material Code | 633541009 | 633542009 | 633543009 | 633544009 |
| Gravity, °API ASTM D4052 | 31.5 | 31.4 | 31.1 | 29.9 |
| Density, lb/gallon | 7.23 | 7.23 | 7.25 | 7.30 |
| Flash Point, COC, °C (°F) ASTM D92 | 202 (396) | 206 (402) | 242 (468) | 250 (482) |
| Pour Point, °C (°F) ASTM D97 | -18 (0) | -16 (3) | -9 (15) | -7 (19) |
| Viscosity ASTM D445 | | | | |
| cSt at 40°C | 32.8 | 46.7 | 64.15 | 100 |
| cSt at 100°C | 5.56 | 6.96 | 8.52 | 11.0 |
| Viscosity Index ASTM D2270 | 107 | 105 | 103 | 105 |
| Color ASTM D1500 | L1.0 | L1.0 | L1.0 | L1.0 |
| Water Separability, mL-mL-mL (min) ASTM D1401 | | | | |
| @ 130°F | 40-40-0 (5) | 40-40-0 (5) | 40-40-0 (10) | - |
| @ 180°F | - | - | - | 40-40-0 (5) |
| Rust Test ASTM D665A | Pass | Pass | Pass | Pass |
| Four-Ball Wear, ASTM D4172 | | | | |
| mm @ 20kg | 0.32 | 0.32 | 0.32 | 0.34 |
| mm @ 40kg | 0.40 | 0.40 | 0.40 | 0.42 |
| Vickers Pump Wear, mg ASTM D2882 | 15 | 15 | 15 | 15 |
| FZG Scuffing Load Capacity ASTM D5182 | 11 | 11 | >12 | >12 |
| ANSI/AGMA 9005-E02 | - | - | 2EP | 3EP |
| Oxidation Stability, hr ASTM D943 | >8000 | >8000 | >8000 | >8000 |
| Tackifier | No | No | No | Yes |
| Kosher* | Ⓢ | Ⓢ | Ⓢ | Ⓢ |
| Halal* | Ⓜ | Ⓜ | Ⓜ | Ⓜ |
| NSF Registered (Registration Number) | H1 (124625) | H1 (124628) | H1 (124632) | H1 (124620) |
| NSF/ANSI Standard 60 Certified | ✓ | - | ✓ | - |
| NSF/ANSI Standard 61 Certified | ✓ | - | ✓ | - |
| FDA, 21CFR 178.3570 | ✓ | ✓ | ✓ | ✓ |

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*Excludes product delivered by bulk transport.