



**CLARION® SYNTHETIC GEAR FLUIDS**

Date 09/15

**DESCRIPTION:** Clarion Synthetic Gear Fluids provide excellent performance in gear boxes, bearings, blowers, reciprocating compressors and hydraulic systems where an NSF H1 lubricant is required or desired. They provide excellent performance in food and beverage canning machinery. Their exceptional heat resistance and low temperature fluidity make them ideal for high and low temperature applications.

Clarion Synthetic Gear Fluids are formulated with high-purity synthetic fluids and additives for food processing machinery applications. Clarion Synthetic Gear Fluids do not contain any natural products derived from animals, nuts or genetically modified organisms (GMOs). They are suitable for use where vegetarian and nut-free food is prepared.

- QUALITIES:**
- Clarion Synthetic Gear Fluids meet the requirements of US Food and Drug Administration (US FDA) regulation 21 CFR 178.3570 for lubricants with the possibility of incidental contact with food for human consumption and are registered as NSF H1 lubricants for use in food processing plants under the jurisdiction of the US Department of Agriculture (USDA).
  - Clarion Synthetic Gear Fluids are colorless, odorless, tasteless, non-staining lubricants that provide excellent wear, rust and oxidation protection.
  - Provide excellent high temperature stability and low temperature fluidity.
  - Can lower machinery operating temperatures and energy consumption.

- APPLICATIONS:**
- Clarion Synthetic Gear Fluids are highly recommended for applications where low temperature pumpability is required.
  - Clarion Synthetic Gear Fluids ISO 150 and 220 are designed for use in can seamers such as those made by Angelus Sanitary Can Seaming Company. The ISO 150 is recommended for high speed and the ISO 220 for Low speed.

**TYPICAL PROPERTIES:**

**CLARION® SYNTHETIC GEAR FLUIDS**

ISO Grade	150	220	320	460
Material Code	632510009	632511009	632512009	632513009
Specific Gravity	0.8459	0.8490	0.8520	0.8545
Density, lb/gal	7.04	7.07	7.09	7.11
Viscosity, ASTM D 445, cSt at 40°C	159	228	328	456
cSt at 100°C	20	26	34	44
Viscosity Index, ASTM D 2270	142	145	148	151
Pour Point, ASTM D 97, °F (°C)	-54 (-48)	-54 (-48)	-44 (-42)	-44 (-42)
Flash Point, ASTM D 92, °F (°C)	529 (276)	532 (278)	540 (282)	530 (276)
Rust Protection, A/B, ASTM D 665	Pass	Pass	Pass	Pass
4-Ball Weld, ASTM D 2596, kgf	160	160	160	160
Load Wear Index	50	50	50	50
4-Ball Wear, ASTM D 4172B, mm Scar at 40kg	0.43	0.35	0.35	0.36
ANSI/AGMA 9005-E02	4EP	5EP	6EP	7EP
FZG, Failure Stage	>12	>12	>12	>12
NSF Registered	H1	H1	H1	H1
FDA 21 CFR 178.3570	✓	✓	✓	✓

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