## CLARION<sup>®</sup> Food Machinery A/W Oils

clarion.

	<ul> <li>Designed specifically for use as lubricants for food processing equipment.</li> <li>Formulated with a high purity while mineral oil and additive system for food processing applications.</li> <li>Does not contain any natural products derived from animals, nuts or genetically modified organisms (GMOs).</li> <li>Suitable for use where vegetarian and nut-free food is prepared.</li> </ul>				
FEATURES & BENEFITS	<ul> <li>Colorless, odorless, tasteless, non-staining lubricants that provide excellent wear, rust, and oxidation protection.</li> <li>Meet the requirements of U.S. FDA regulation 21 CFR 178.3570 for incidental food contact.</li> <li>NSF H1 registered for use in food processing plants under the jurisdiction of the USDA.</li> <li>Certified under NSF/ANSI Standards 60 and 61 (ISO 32 and 68 grades only).</li> <li>Certified as Kosher (Passover) with the Union of Orthodox Jewish Congregations of America ().*</li> <li>Certified as Halal with the Islamic Food and Nutrition Council of America ().*</li> <li>Certified as Halal with the Islamic Food and Nutrition Council of America ().*</li> <li>Certified to Islamic Food and Nutrition Council of America ().*</li> <li>Certified to Certified to Certified to Standards 61 (ISO 32 and 63 Clarion Food Machinery AVW 32 and AVW 68 Oils (ONLY)</li> </ul>				
APPLICATIONS	<ul> <li>General purpose lubricants for machinery that processes, packages, or transports food for human consumption.</li> <li>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.</li> <li>ISO 68 and 100 grades may be used in food machinery worm gears, spur gears, and valves.</li> </ul>				
CITGO Petroleum Corporation Houston, Texas	Customer Service Line         Product Answer Line         Online at         Manufactured in USA         CL10102           1-800-331-4068         1-800-248-4684         www.ClarionLubricants.com         Manufactured in USA         CL10102				

## 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*	U	U	U	U
Halal*	M.	M.	M.	M.
NSF Registered (Registration Number)	H1 (124625)	H1 (124628)	H1 (124632)	H1 (124620)
NSF/ANSI Standard 60 Certified	~	-	~	-
NSF/ANSI Standard 61 Certified	v	-	<b>v</b>	-
FDA, 21CFR 178.3570	~	~	~	~

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\*Excludes product delivered by bulk transport.

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