

**CLARION® CLARITECH™ OILS**

Date 1/09

DESCRIPTION: Clarion ClariTech Oils are technical grade white mineral oils made by a severe hydrotreating process developed to enhance product purity and stability as compared to conventional process oils. They are available in a wide viscosity range.

QUALITIES: Clarion ClariTech Oils meet the requirements of the U.S. FDA regulation 21 CFR 178.3620 (b). These Oils are colorless, odorless, non-staining and essentially free of aromatic carbon content. They are water white in color, have superior color stability and excellent resistance to thermal and oxidative degradation.

They have excellent lubricity for recommended applications, and are economical for applications requiring white mineral oils but not requiring food grade certification.

APPLICATIONS: Clarion ClariTech Oils are recommended for use as plasticizers and extenders for very light colored rubbers and plastics, and process aids for color stable caulks and sealants, and all applications requiring very high stability and low solvency oils.

These oils are excellent as textile fiber lubricants where it is critical that the lubricant be colorless, odorless, and non-staining.

These oils exceed the requirements for U.S. FDA regulation 21 CFR 178.3620 (b), for use as paper defoamers, in adhesives, rubber articles, and as a surface lubricant in the food packaging area. Low viscosity oils are used as a paper processing aid.

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TYPICAL PROPERTIES:

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ISO Grade	6006	6056
Material Code	633534009	633535009
Gravity, ASTM D 4052, °API	34.19	30.77
Density, lbs/gallon	7.11	7.26
Flash Point, ASTM D 92, °C (°F)	188 (370)	246 (475)
Pour Point, ASTM D 97, °C (°F)	-33 (-27)	-9 (+16)
Viscosity, cSt at 40°C	12.6	107.8
cSt at 100°C	3.0	12.00
SUS at 100°F	72	562
SUS at 210°F	36.4	67.7
Color, Saybolt, ASTM D 156	+20	+20
Aniline Point, ASTM D 611, °C (°F) ¹	97 (207)	122 (252)
Viscosity Gravity Constant, ASTM D 2501	0.813	0.795
Refractive Index, ASTM D 1218, 20°C ¹	1.4676	1.4776
Volatility, ASTM D 2369, 110°C for 1 hr., % ¹	4.37	0.03
Molecular Weight, ASTM D 2502	325	610
Carbon Type Analysis, ASTM D 2140, wt%		
Caromatic	<1	<1
Cnaphthenic	32	32
Cparaffinic	67	67
Carbon Type Analysis, ASTM D 2007, wt% ¹		
Polar Compounds	0.05	0.06
Aromatics	1.58	1.48
Saturates	98.37	98.46
Distillation, ASTM D 2887, °F		
IBP	408	731
5%	627	808
50%	689	945
95%	750	1053
FBP	836	1105
FDA 21 CFR		
172.878	✓	✓
178.3620 (b)	✓	✓

¹ Results are based on a single determination.