



## Industrial Oil

Phillips 66® Industrial Oil is a highly refined, non-compounded (no additives) paraffinic mineral oil recommended for use as a high-quality process oil, diluent oil, flush oil, or blending component for other lubricants. It also is recommended for general-purpose lubrication in applications that do not require a compounded oil.

Industrial Oil is available in seven grades for use in a wide range of applications. It is highly refined from select paraffinic stocks to be uniform in quality and chemical composition and have carefully controlled physical and chemical properties. It has high natural oxidation stability, low volatility, and good viscosity-temperature characteristics for use over a wide temperature range. It has a high flash point relative to its viscosity, good solvency properties, and very light color.

Industrial Oil 580 is registered with NSF International as an H2 lubricant for use in applications where there is no food contact.

### Applications

- Process oil
- Compounding oil for rubber products and adhesives
- Blending component for other lubricants
- Flush oil for gas and steam turbines
- Mineral seal oil
- Chain drives and other “once-through” applications
- General-purpose lubrication in applications that do not require a compounded oil

Industrial Oil 580 meets the requirements of:

- NSF International H2 and former 1998 USDA H2 guidelines for no incidental food contact
- U.S. FDA Code of Federal Regulations 21 CFR 178.3620 (b) for non-food applications

### Features/Benefits

- Uniform quality and chemical composition
- High natural oxidation stability
- Good viscosity-temperature characteristics
- Low volatility
- High flash point
- Good solvency
- Very light color (except 2500 grade)
- Non-staining
- Quick foam release

## Highly Refined Paraffinic Mineral Oil





## Industrial Oil

Typical Properties								
Grade	70	100	110	115	150	250	580	2500
ISO Grade	10/15	22	22	22	32	46	100	460
Gravity, °API @ 60°F	33.8	34.1	34.4	33.9	32.4	31.7	29.5	27.4
Specific Gravity @ 60°F	0.856	0.855	0.8529	0.856	0.863	0.867	0.879	0.890
Density, lbs/gal @ 60°F	7.13	7.12	7.1	7.12	7.19	7.22	7.32	7.41
Color, ASTM D1500	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5.0
Flash Point (COC), °C (°F)	196 (385)	209 (408)	207(405)	210 (410)	216 (421)	238 (460)	266 (511)	312 (594)
Pour Point, °C (°F)	-34 (-29)	-14 (7)	-15(5)	-18 (0)	-18 (0)	-18 (0)	-13 (9)	-12 (10)
Viscosity								
cSt @ 40°C	12.6	20.3	20.3	22.0	32.0	46.0	109	460
cSt @ 100°C	3.0	4.1	4.16	4.4	5.5	6.9	11.9	30.7
SUS @ 100°F	72.0	107	107	115	165	237	569	2,464
SUS @ 210°F	36.4	40.1	40.1	41.1	44.7	49.3	67.3	151
Viscosity Index	87	101	106	109	108	105	98	95
Acid Number, ASTM D664, mg KOH/g	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Aniline Point, ASTM D611, °C (°F)	96 (205)	107 (225)	107(225)	108 (226)	112 (234)	116 (241)	126 (259)	132 (270)

## Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet via <http://www.phillips66.com/EN/products/Pages/MSDS.aspx>.

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Typical properties are average values only and do not constitute a specification. Minor variations that do not affect product performance are to be expected during normal manufacture, and at different blending locations. Product formulations are subject to change without notification.