

**Product Data Sheet**

NOTE: The information in this publication is the result of careful testing in our laboratories, complemented by selected literature. It does not in any way constitute a guarantee, nor does it serve as a license to operate any patent. Due to widely varying conditions of product use, which are beyond our control, it is strongly recommended that the product be tested for suitability. Product typical properties in this publication are current.

## QUENCH OIL

*Quench Oil Series* are high-quality oils developed for heat treatment of ferrous metals in a wide variety of quenching operations. They are formulated to provide deep and uniform hardening with minimum distortion and cracking. Quench Oils are available in three grades: 22, 22HS and 32HS.

The 22 grade is a highly refined, straight mineral oil recommended for conventional quenching of ferrous metals at bath temperatures up to 150°F (66°C). It has a slower quench speed than the other grades, and provides minimum hardening power. The HS grades are fortified with select additives to provide enhanced oxidation resistance and metalwetting ability for use in fast quench operations where it is important to develop maximum hardness while minimizing distortion.

The 22HS grade is a medium and high speeds quench oil with moderate-to-high hardening power. The 32HS grade is a higher viscosity, high-speed quench oil that provides the highest hardening power.

### Physical Properties

PRODUCTS	22	HS 22	HS 32
Specific Gravity	0.854 g/cc	0.855 g/cc	0.864 g/cc
Density	0.852 g/cc	0.853 g/cc	0.862 g/cc
Viscosity Measurement	118	107	103
Saybolt Viscosity at 100°F	115 SUS	120 SUS	170 SUS
Saybolt Viscosity at 210°F	41.4 SUS	41.4 SUS	44.7 SUS
Kinematic Viscosity at 40°C (104°F)	22 cSt	23.1 cSt	32.9 cSt
Kinematic Viscosity at 100°C (212°F)	4.5 cSt	4.5 cSt	5.5 cSt
ASTM Color	0	2.0	2

**Shelf Life:** Product shelf life is 5 years from the date of manufacture, after which the product should be recertified prior to use.