

AMALIE®

Better than it has to be®
Since 1903



PREMIUM

HEAT TRANSFER AND QUENCHING OIL 22

BENEFITS:

- » Accelerated Cooling Rate
- » Constant Cooling Rates in Service
- » Minimum Viscosity Increase Through Controlled Formation of Organic Acids
- » Reduced Steel Component Cracking and Distortion
- » Promotes Deep Hardening
- » Low Toxicity and Corrosiveness
- » Meets Requirements of DIN 51502 Class L and ISO 6743/12 Category L



MADE IN U.S.A.



Better than it has to be[®]
Since 1903

PREMIUM HEAT TRANSFER AND QUENCHING OIL

AMALIE Premium Heat Transfer and Quenching Oil 22 is a mineral oil-based fluid for use in secondary or indirect heating systems. It is formulated with high quality group II base stocks. It is non-toxic, non-corrosive, has a low odor level and excellent seal compatibility. This fluid has a high ability to absorb heat quickly and transport it to the material or fluid requiring heat. The excellent thermal and oxidation stability provides long service life and clean heat exchanger systems. This is recommended for use in closed liquid-phase heat transfer systems, and open systems where maximum bulk oil temperatures do not exceed 190°C.

AMALIE Premium Heat Transfer and Quenching Oil 22 may also be used for rapid or controlled cooling of steel or other metals. This treatment can be part of a hardening, tempering or other heat-treating process. This fluid will aid in the hardening of steel by controlling heat transfer during quenching. **AMALIE Premium Heat Transfer and Quenching Oil 22** also enhances wetting of steel during quenching to minimize the formation of undesirable thermal and transformational gradients which may lead to increased distortion and cracking.

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-------------------------------------|-----------|
| API Gravity..... | 33 |
| Lbs./gallon..... | 7.16 |
| Viscosity, cSt | |
| @100 °C..... | 4.5 |
| @ 40 °C..... | 24 |
| Viscosity Index..... | 103 |
| Color..... | 2.5 |
| Pour Point, °C (°F)..... | -15 (5) |
| Flash Point, °C (°F)..... | 201 (394) |
| Fire Point, °C (°F)..... | 225 (437) |
| Ramsbottom Carbon Residue, wt%..... | 0.04 |

ASTM D6200 Results

| | |
|---------------------------------------|---------|
| Max Cooling Rate, °C..... | 80.84 |
| Temp at Max Cool Rate, °C..... | 547.455 |
| Cooling rate at 300°C, °C/second..... | 12.18 |
| Time to 600°C, seconds..... | 10.55 |
| Time to 400°C, seconds..... | 13.7 |
| Time to 200°C, seconds..... | 36.85 |

Typical values are listed. Variations not affecting the performance of this fluid may occur during production; however, these variations will not fall outside of set specification parameters.

Additional Information: Please use proper handling and care that you would use with any lubricating oil.

Please consult AMALIE Technical Services or your local representative for a full listing of applications.

Technical Services: • (800) 368-1264 • techservices@amalie.com

PREMIUM HEAT TRANSFER AND QUENCHING OILS

| VISCOSITY | PACK SIZE | PART # |
|-----------|----------------|--------------|
| 22 | 55 Gallon Drum | 160-64013-05 |

Health and Safety

Safety Data Sheets (SDS) are available from your sales representative or at AMALIE.com.

The data presented herein are believed to be accurate; however, Amalie Oil Company shall not be liable for its content and makes no warranty with respect thereto.