



# HTO32, HTO68 Plus and HTO100

**Product Codes:** HTO32205, HTO32100LTR, HTO68205, HTO68BULK, HTO100205

**Issue Date:** January 2014

Penrite HTO 32, HTO 68 PLUS and HTO 100 are a range of highly refined, thermally stable, mineral oil-type heat transfer fluids formulated with premium hydrocracked base oils.

## Application

Penrite HTO Oils are used as heat transfer fluids in both closed and open heat transfer systems with forced circulation where a mineral-type heat transfer fluid is required.

Suitable for open or closed heat transfer systems with forced circulation operating under the following conditions:

- Maximum bulk oil temperature: 288°C
- Maximum film temperature on heater surfaces: 316°C
- Maximum temperature of oil surface in contact with air in open systems: 107°C

*Systems must have forced circulation of the heat transfer fluid.*

### Note for open systems:

Due to oxidation which is increased in open systems due to exposure to oxygen, the life of any mineral oil in an open system declines rapidly at temperatures beyond the region of 100°C. Therefore, a reduced service life must be expected for these oils at higher temperatures in open systems.

## Customer Benefits

- Excellent heat transfer properties enable efficient transfer of heat
- Resist deposit formation
- Excellent thermal stability and good oxidation resistance
- Long oil service life

## Typical Data

	HTO 32	HTO 68 PLUS	HTO 100
Density at 15°C, kg/L	0.854	0.874	0.874
Viscosity, Kinematic, cSt			
at 40°C	31	74	107
at 100°C	5.4	9.2	12.2
Viscosity Index	118	99	104
NOACK Volatility, weight % loss	14.0	7.0	5.0
Flash Point, COC, °C	220	230	228
Copper Corrosion, 3 hours at 100°C	1a	1a	1a
Oxidation Stability, hours D943	>8000	>8000	>8000
Total Sludge, % weight IP280	0.07	0.07	0.07
Water Separability @ 54°C, (minutes)	40/40/0 (10)	40/40/10	-
Water Separability @ 82°C, (minutes)	-	-	40/40/0 (10)
TAN, mg KOH/g	0.10	0.10	0.10
Pour Point, °C	-18	-15	-15
Colour, ASTM D1500	0.5	0.5	0.5
Auto Ignition Temperature, °C	370	370	370
Flash Point, PMCC, °C	200	202	202
Sulphur Content, % mass	<0.002	<0.002	<0.002
Ash Content D482, % mass	0.001	0.001	0.001
Carbon Residue, D189, % mass	<0.01	<0.01	<0.01

Information in this sheet is based on recent production. Minor variations to typical properties are expected in normal manufacture and do not affect product performance. An MSDS is available on request.

**PENRITE OIL COMPANY PTY LTD**, 88 Lewis Road, Wantirna South  
 Victoria AUSTRALIA 3152, ABN 25 005 001 525  
 Enquiries: Phone 1300-PENRITE (1300 736 7483)  
 Fax: 1800-PENRITE (1800 736 7483)  
 International: Phone: 61 3 9801 0877, Fax: 61 3 9801 0977  
 New Zealand Ph: 0800 533 698, Fax: 0508 736 748  
 United Kingdom and EU Ph: +44 (0) 1594 562357, Fax: +44 (0) 1594 564234  
 Website: www.penriteoil.com, Email: penrite@penriteoil.com

**PROUDLY AUSTRALIAN  
 FAMILY OWNED  
 SINCE 1926**



PENRITE

