



# PRODUCT DATA SHEET

Premium Quality Lubricants

## NATIONAL™ VHVI HYDRAULIC OILS

High viscosity Index & Low Pour Point

### PRODUCT DESCRIPTION

NATIONAL™ VHIV hydraulic oils are designed to give long service in high-output hydraulic systems using vane, piston or gear pumps. These oils have high viscosity index (VI) and low pour point for use over a wider temperature range than conventional anti-wear hydraulic fluids. *Since these oils contain a Zincdithiophosphate anti-wear agent, it should not be used in those specialized pumps having silver-faced bearing surfaces.* These oils are recommended for high-pressure pumps and hydraulic systems from leading manufacturers such as:

### INDUSTRY AND OEM SPECIFICATIONS

- ◆ John Barnes
- ◆ Denison HF-O
- ◆ Cincinnati Machine (appropriate viscosity grades)
- ◆ Bellows-Valveair
- ◆ Dynes
- ◆ Sundstrand
- ◆ Hydrec0
- ◆ Pesco
- ◆ Racine, Variable volume pump
- ◆ Vickers M-2950-S (mobile) and I-286-S (industrial)

### APPLICATIONS

NATIONAL™ VHIV hydraulic oils are ideally suited for piston, gear and vane pump used in industrial, marine, woodlands, and mining and other mobile hydraulic systems operating in cold weather or with wide temperature fluctuations. The typical applications also include hydraulic control systems for machine tools and press, mobile construction equipment, hydraulic elevators, hoists and lifts.

### TYPICAL PROPERTIES

ISO GRADE	TEST	15	22	32	46	68	100
Viscosity @100°C	D445	3.84	4.86	6.42	8.3	10.5	13.1
Viscosity @40°C	D445	15.23	22.77	34.6	50.0	67.7	100
Viscosity Index	D2770	151	141	140	140	143	130
Pour Point °C	D97	-54	-54	-50	-41	-40	-40
Color	D1500	0.5	0.5	0.5	1.0	1.5	1.5

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