

# ACHIEVAL<sup>®</sup>

FIRE RESISTANT HYDRAULIC FLUIDS



**FM APPROVED**

Achieval<sup>®</sup> FRH 46 is a Factory Mutual Approved (finished product formulation)



a Recochem Company



# FRH 46

High-pressure and high-temperature environments require water soluble hydraulic fluids that can get the job done right, while delivering a superior level of fire protection under stress. KOST USAs comprehensive line of Achieval<sup>®</sup> Fire Resistant Hydraulic Fluids deliver the ultimate performance, durability and protection needed to keep your critical equipment up and running. It's what your system demands.

Achieval<sup>®</sup> FRH 46 offers excellent pump lubrication and anti-wear characteristics resulting in optimum hydraulic system performance and extended pump life. It's Factory Mutual approved as a less hazardous fluid and can be used in or near fire hazard applications.

## Achieval<sup>®</sup> FRH 46 Offers the Following Advantages:

- Outstanding fire resistance properties, providing a safer work environment.
- Superior corrosion protection, extending equipment life
- Excellent shear stability and anti-wear protection, helping reduce downtime
- High viscosity index, low pour point, excellent heat transfer and anti foam performance
- Minimum pump and valve wear when used in accordance with OEM recommendations
- Higher viscosity for a wide range of applications and reduced inventory costs
- Storage stability for easy handling in the warehouse and reduced waste
- Compatibility with other FRH water-glycols, permitting top-off to begin immediately

## Achieval<sup>®</sup> FRH 46 meets or exceeds these Performance Requirements with the following Test Methods:

FM Approvals 6930 - ASTM D7043

## Achieval<sup>®</sup> FRH 46 is recommended for use in the following applications:

Steel Mills, Die Casting, Forging, Alloy Mills, Foundries, Mining, Automatic Car Washes

Typical Properties	FRH 46	FRH 252	Testing Conditions	FRH 46
Color	Red	Red	Pressure	2000 psi
Viscosity at 40°C (104°F)	46	270	Fluid Temperature	150°F
Viscosity Index at 200 cSt	215	N/A	Time	100 Hours
Specific Gravity, 68°F (20°C)	1.08	1.102	<b>Pump Wear Results</b>	<b>T1 T2 T3 AVG</b>
Density, 68°F (20°C)	8.96	9.19	Weight Loss, Ring (mg)	2.4 2.4 5.2 3.3 <sup>R</sup>
pH	9.5	9.5	Weight Loss, Vanes (mg)	7.5 8 8.7 8.1 <sup>V</sup>
Reserve Alkalinity	20	30	Total Weight Loss (mg)	9.9mg 10.4 13.9 11.4
Pour Point	-71°F (-57°C)	N/A		

R +/- 1.3 mg Standard Deviation  
V +/- 0.5 mg Standard Deviation

Shipping Info	FRH 46	FRH 46	FRH 46	FRH 252	FRH 252	RA Inhibitor
Part Number	13475	13473   13476	13209	13477	13210	10320
Size	55-G DRUM	275   330 G TOTE	Bulk	55-G DRUM	Bulk	5-G PAIL
Package Dimensions	23.5" x 34.5"	40" x 48" x 46"	N/A	23.5" x 34.5"	N/A	11" x 10" x 14"
Gross Container Weight	≈537 Pounds	≈537 Pounds	N/A	≈537 Pounds	N/A	≈42 Pounds
Gross Weight on Pallet	≈2198 Pounds	≈2198 Pounds	N/A	≈2198 Pounds	N/A	≈2066 Pounds
Quantity Per Pallet	4	1	N/A	4	N/A	48
Pallet Dimensions	45" x 45" x 39.4"	40" x 48" x 46"	N/A	45" x 45" x 39.4"	N/A	48" x 48" x 48"

All reasonable care has been taken to ensure that the information contained herein is accurate as of the date of printing. Freedom to use any patent owned by KOST<sup>®</sup> USA, a Recochem Company or others is not to be inferred from any statement contained herein. Test results listed are typical properties only. Formula and blending changes may result in slight color or appearance changes. Please consult SDSs for information on storage, handling and disposal.

