



Product Name

UCON™ Lubricant 75-H Series Base Stocks

UCON™ Lubricant 75-H-90,000, 75-H-280,000 and 75-H-380,000

Product Description

UCON™ Lubricant 75-H-90,000

UCON™ Lubricant 75-H-90,000 is a polyalkylene glycol (PAG) containing 75 weight percent oxyethylene and 25 percent oxypropylene groups. It is water soluble below 75°C and has two terminal hydroxyl groups.

UCON™ Lubricant 75-H-90,000 offers exceptional lubricity and cleanliness into many lubricant applications, including textile fiber lubricant, water glycol hydraulic fluid and metal working fluids.

Product Applications

As a Lubricant:

- Metal Working Fluid
- Textile Lubricant
- Hydraulic Fluid Thickener
- Mandrel Release Agent

Specialty:

- Electronic Chemicals
- Paper Adhesive Component
- Quenching Component
- Chemical Intermediate

For ease in transport and handling UCON™ Lubricant 75-H-90,000 is available in three versions:

- as neat, undiluted polyol: UCON™ Lubricant 75-H-90,000
- as 30% water content dilution: UCON™ Lubricant 75-H-90,000 AQ
- as 40% water content dilution: UCON™ Lubricant 75-H-90,000 40% AQ

Typical Physical Properties* of UCON™ Lubricant 75-H-90,000

Properties	75-H-90,000	75-H-90,000 AQ	75-H-90,000 40% AQ
Water Content, wt%	0.30 max.	28 - 32	39 - 41
Viscosity, cSt at 40°C, ASTM D445	17,000	2,410	1,140
Viscosity, cSt at 50°C, ASTM D445	12,300	1,630	750
Viscosity, cSt at 100°C, ASTM D445	2545	n.a.	n.a.
Viscosity Index (VI) ASTM D2270, IP226	414	n.a.	n.a.
Specific Gravity, 20°C, ASTM D 4052	1.092	1.090	1.090
Specific Gravity, 40°C, ASTM D 4052	1.074	1.071	1.069
Color, Gardner, ASTM D4890	4 max.	2 max.	2 max.
Pour Point, °C, ASTM D97	-15	-24	-33
Cloud Point, °C, 10% aq., DOWM 101476	72 - 77	n.a.	n.a.
Flash Point, Open Cup, °C, ASTM D92	265	None	None

* Typical properties, not to be construed as specifications

Product Description

UCON™ Lubricant 75-H-280,000

UCON™ Lubricant 75-H-280,000 is an extremely viscous, high molecular weight, water soluble polyalkylene glycol (PAG) polymer containing 75 weight percent oxyethylene and 25 weight percent oxypropylene groups.

UCON™ Lubricant 75-H-280,000 is chemical and shear stable, is non-foaming and offers good lubricity properties.

Product Applications

UCON™ Lubricant 75-H-280,000 can be used as a thickener in fire resistant water-glycol hydraulic fluids. Base stock can be formulated with water and ethylene glycol, diethylene glycol or propylene glycol. Anti-corrosion and anti-wear additives are used to enhance lubricating characteristics.

UCON™ Lubricant 75-H-280,000 can also be used as base oil in applications such as heat treating and quenching, metalworking and aqueous thickening.

Typical ISO 46 HF-C formulation:

Component	Wt%
Water	40-42
Glycol	38-40
UCON™ Lubricant 75-H-280,000 (neat)	15-17
Additives / inhibitors	3

For ease in transport and handling UCON™ Lubricant 75-H-280,000 is available in two water dilutions:

- as 40% water content dilution: UCON™ Lubricant 75-H-280,000 40% AQ
- as 44% water content dilution: UCON™ Lubricant 75-H-280,000 44% AQ

Typical Physical Properties of UCON™ Lubricant 75-H-280,000

Properties	75-H-280,000	75-H-280,000 40% AQ	75-H-280,000 44% AQ
Water Content, wt%	0.30 max.	39 - 41	43 - 45
Viscosity, cSt at 40°C, ASTM D445	55,000	2,600	1,700
Viscosity, cSt at 50°C, ASTM D44	33,000	1,800	1,300
Viscosity, cSt at 100°C, ASTM D445	7900	n.a.	n.a.
Viscosity Index (VI) ASTM D2270, IP226	430	n.a.	n.a.
Specific Gravity, 20°C, ASTM D 4052	1.094	1.090	1.087
Specific Gravity, 40°C, ASTM D 4052	1.074	1.069	1.066
Color, Gardner, ASTM D4890	4 max.	3 max.	3 max.
Pour Point, °C, ASTM D97	-9	-30	-33
Cloud Point, °C, 10% aq., DOWM 101476	72 - 78	n.a.	n.a.
Flash Point, Open Cup, °C, ASTM D92	240	None	None

* Typical properties, not to be construed as specification. Sales specifications are available on request.

Product Description

UCON™ Lubricant 75-H-380,000

UCON™ Lubricant 75-H-380,000 is an extremely viscous, high molecular weight, water soluble polyalkylene glycol (PAG) polymer containing 75 weight percent oxyethylene and 25 weight percent oxypropylene groups.

UCON™ Lubricant 75-H-380,000 is chemical and shear stable, is non-foaming and offers good lubricity properties.

Product Applications

UCON™ Lubricant 75-H-380,000 can be used as a thickener in fire resistant water-glycol hydraulic fluids. Base stock can be formulated with water and ethylene glycol, diethylene glycol or propylene glycol. Anti-corrosion and anti-wear additives are used to enhance lubricating characteristics.

UCON™ Lubricant 75-H-380,000 can also be used as base oil in applications such as heat treating and quenching, metalworking and aqueous thickening.

Typical ISO 46 HF-C formulation:

Component	Wt%
Glycol	44-46
Water	40-42
UCON™ Lubricant 75-H-380,000 (neat)	11-13
Additives / inhibitors	3

For ease in transport and handling UCON™ Lubricant 75-H-380,000 is available in three water dilutions:

- as 20% water content dilution: UCON™ Lubricant 75-H-380,000 20% AQ
- as 30% water content dilution: UCON™ Lubricant 75-H-380,000 AQ
- as 40% water content dilution: UCON™ Lubricant 75-H-380,000 40% AQ

Physical Properties* of UCON™ Lubricant 75-H-380,000

Properties	75-H-380,000	75-H-380,000 20% AQ	75-H-380,000 AQ	75-H-380,000 40% AQ
Water Content, wt%	0.30 max.	18.5 – 21.5	28 - 32	39 - 41
Viscosity, cSt at 40°C, ASTM D445	100,000	22,000	8,800	4,000
Viscosity, cSt at 50°C, ASTM D445	56,000	15,000	6,000	2,500
Viscosity, cSt at 100°C, ASTM D445	11,175	n.a.	n.a.	n.a.
Viscosity Index (VI) ASTM D2270, IP226	450	n.a.	n.a.	n.a.
Specific Gravity, 20°C, ASTM D 4052	1.098	1.094	1.092	1.090
Specific Gravity, 40°C, ASTM D 4052	1.076	1.073	1.071	1.069
Color, Gardner, ASTM D4890	4 max	4 max.	4 max.	4 max
Pour Point, °C, ASTM D97	-9	-15	-15	-27
Cloud Point, °C, 10% aq., DOWM 101476	73 - 79	n.a.	n.a.	n.a.
Flash Point, Open Cup, °C, ASTM D92	260	None	None	None

* Typical properties, not to be construed as specification. Sales specifications are available on request.

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Overview of all commercial grades

	Method	75-H- 90,000	75-H- 90,000 AQ	75-H- 90,000 40% AQ	75-H- 280,000 40% AQ	75-H- 280,000 44% AQ	75-H- 380,000 20% AQ	75-H- 380,000 AQ	75-H- 380,000 40% AQ
Water Content, wt%		0.3	30	40	40	44	20	30	40
Viscosity, cSt at 40°C	ASTM D445	17,000	2,410	1,140	2,600	1,600	22,000	8,800	4,000
Viscosity, cSt at 50°C	ASTM D445	12,300	1,630	750	1,800	1,300	15,000	6,000	2,500
Specific Gravity, 20°C	ASTM D4052	1.092	1.090	1.090	1.090	1.087	1.094	1.092	1.090
Specific Gravity, 40°C	ASTM D4052	1.074	1.071	1.069	1.069	1.066	1.073	1.071	1.069
Color, Gardner	DOWM 101476	4 max	2 max	2 max	3 max	3 max	4 max	4 max	4 max
Pour Point, °C	ASTM D 97	-15	-24	-33	-30	-33	-15	-15	-27

Product Stewardship

For More Information

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