



Hi-Tec Oil Traders Pty Ltd ABN 28 053 837 362

5 Tarlington Place Smithfield NSW 2164

Correspondence: P.O Box 322 Castle Hill NSW 1765

Ph: 1300 796 009 | Fax: (02) 9604 1611 | Email: hitecoils@hi-tecoils.com.au

[www.hi-tecoils.com.au](http://www.hi-tecoils.com.au)

## PRODUCT DATA SHEET

### FIRE RESISTANT HYDRAULIC FLUID Q888-68

#### Description:

**Hi-Tec Fire Resistant Hydraulic Fluid Q888-68** is designed to replace antiwear, mineral oil-based hydraulic fluids used in applications where fire hazards exist. It can also be used in environmentally sensitive hydraulic applications without compromising the overall hydraulic system operations.

**Hi-Tec Fire Resistant Hydraulic Fluid Q888-68** does not contain water, mineral oil, or phosphate ester, and is based on high-quality, synthetic, organic esters and carefully selected additives to achieve excellent hydraulic fluid performance. It offers the lubrication level of premium, anti-wear hydraulic oils, and can be used with hydraulic components from all major manufacturers.

#### Benefits of Hi-Tec Fire Resistant Hydraulic Fluid Q888-68:

- Fire-resistant
- High ignition temperature and low heat release
- Properties that limit the spread of fire
- Excellent shear stability
- Approved by Factory Mutual Approvals
- Non-toxic / non-toxic to aquatic life
- Non-irritating
- Fully biodegradable
- Simple waste treatment

#### Compatibility:

**Metals:** **Hi-Tec Fire Resistant Hydraulic Fluid Q888-68** is compatible with iron and steel alloys and most nonferrous metals and their alloys. It is not compatible with lead, cadmium, zinc, and alloys containing high levels of these metals. Suitable substitutes for these materials are available and should be used.

**Paints and Coatings:** **Hi-Tec Fire Resistant Hydraulic Fluid Q888-68** is compatible with multi-component epoxy coatings. It is not compatible with zinc-based coatings. Specific coating and application recommendations can be obtained from coating manufacturers or directly from Hi-Tec representative.

**Fluids:** **Hi-Tec Fire Resistant Hydraulic Fluid Q888-68** is compatible and miscible with nearly all mineral oil and polyol-ester type hydraulic fluids and with some, but not all, phosphate esters. It is not miscible or compatible with water-containing fluids. For conversion recommendations, please contact your Hi-Tec representative.



AUSTRALIAN FAMILY OWNED SINCE 1989





# PRODUCT DATA SHEET

The following chart contains recommendations regarding the use of **Hi-Tec Fire Resistant Hydraulic Fluid Q888-68** with commonly used elastomers. The elastomer applications listed are: "Static," which refers to trapped nonmoving seals such as O-rings in valve sub-plates and rigid, low pressure hose connections; "Mild-Dynamic," whose applications include accumulator bladders and hose linings where the hoses are exposed to high pressure and light flexing; and "Dynamic," which refers to cylinder rod seals, pump shaft seals and constantly flexing hydraulic hose.

<u>ISO 1629</u>	<u>DESCRIPTION</u>	<u>STATIC</u>	<u>MILD DYNAMIC</u>	<u>DYNAMIC</u>
<b>NBR</b>	Medium to high nitrile rubber (Buna N, >30% acrylonitrile)	C	C	C
<b>NBR</b>	Low nitrile rubber (Buna N, <30% acrylonitrile)	S	N	N
<b>FPM</b>	Fluoroelastomer (Viton®)	C	C	C
<b>CR</b>	Neoprene	S	S	S
<b>IIR</b>	Butyl rubber	S	N	N
<b>EPDM</b>	Ethylene propylene rubber	N	N	N
<b>AU</b>	Polyurethane	C	C	C
<b>PTFE</b>	Teflon®	C	C	C

*C = Compatible*

*S = Satisfactory for short term use, but replacement with a completely compatible elastomer is recommended at the earliest convenience.*

*N = Not Compatible*

## Storage:

If the following criteria are adhered to, **Hi-Tec Fire Resistant Hydraulic Fluid Q888-68** can be stored for at least six months.

Maximum recommended long-term storage temperature : 40°C.

Minimum recommended long-term storage temperature : 0°C.

Keep drums/containers tightly closed when not in use.

Store containers/drums in a dry and well ventilated area.

## Chemical and Physical Properties:

<u>PROPERTIES</u>	<u>METHOD</u>	<u>RESULT</u>
<b>Appearance</b>	Visual	Yellow to amber fluid
<b>Kinematic Viscosity</b>	ASTM D 445	
At 0°C		615 cSt
At 20°C		165 cSt
At 40°C		68 cSt
At 100°C		14 cSt
<b>Viscosity Index</b>	ASTM D 2270	215
<b>Density at 15°C</b>	ASTM D 1298	0.92 g/cm <sup>3</sup>
<b>Acid Number</b>	ASTM D 974	1.5 mg KOH/g





Hi-Tec Oil Traders Pty Ltd ABN 28 053 837 362

5 Tarlington Place Smithfield NSW 2164

Correspondence: P.O Box 322 Castle Hill NSW 1765

Ph: 1300 796 009 | Fax: (02) 9604 1611 | Email: hitecoils@hi-tecoils.com.au

www.hi-tecoils.com.au

## PRODUCT DATA SHEET

### Chemical and Physical Properties (Cont):

#### PROPERTIES

Pour Point

Foam Test at 25°C

Corrosion Protection

Flash Point

Fire Point

Auto Ignition

Temperature

Air Release

Fire Resistance

Pump Test

Gear Lubrication

Water Separability

Specific Heat at 20°C

Coefficient of Thermal Expansion at 20°C

Vapor Pressure

At 20°C

At 66°C

Bulk Modulus at 20°C

At 210 bar

At 3,000 psi

Thermal Conductivity at 19°C

Dielectric Breakdown Voltage

#### METHOD

ASTM D 97

ASTM D 892

ISO 4404-2

ASTM D 665A

ASTM D 92

ASTM D 92

DIN 51794

ASTM D 3427

FM Approvals

ASTM D 2882

DIN 51354-2

ASTM D 1401

ASTM D 2766

ASTM D 1903

ASTM 02551

ASTM D 2717

ASTM D 877

#### RESULT

< -20°C (< -4°F)

Sequence I: 50-0 ml-ml

Pass

Pass

304°C (579°F)

360°C (680°F)

>400°C (>752°F)

7 min.

Approved

<5 mg wear

>12 FZG load stage

42-38-0 (30) ml-ml-ml (min.)

2.06 kJ/kg °C, 0.49 Btu/lb °F

6 X 10<sup>-4</sup> per °C

3.2 X 10<sup>-6</sup> mmHg

7.5 X 10<sup>-6</sup> mm Hg

1.87 X 10<sup>5</sup> N/cm<sup>2</sup>

266,900 psi

0.167 J/sec/m°C

30 kV

**Available in:** 200 Litres, 20 Litres

"The facts stated and the recommendations made herein are believed to be accurate. No guarantee of their accuracy is made however, and unless otherwise expressly provided in written contract, the products are sold without conditions or warranties, expressed or implied. Purchasers should determine the suitability of such products for their particular purposes".

**Item Code:** HI5-2925-

**Effective:** October 2014

**Effective:** October 2016

GH410192/3



AUSTRALIAN FAMILY OWNED SINCE 1989

