



## Anvol SWX

Fire resistant hydraulic fluid

### Description

The Castrol Anvol® SWX grades are HFDU synthetic polyol ester type hydraulic fluids for use in applications that require a high degree of lubricity and fire resistance according to Factory Mutual Category 1. Anvol SWX products are outstanding in their category in providing a safe working environment and improved system reliability.

### Application

Formulated to work in high pressure hydraulic systems up to 7500psi Anvol SWX provides all types of hydraulic pumps with protection against wear equivalent to that of mineral oils.

Anvol SWX is designed to combine HFDU fire resistance performance with superior system reliability and a reduced tendency to form varnish or sludge in valves, pipes and reservoirs. It also provides greater resistance to water by offering high levels of corrosion protection.

Even in the harshest steel mill environment, Anvol SWX provides safety, protection and reliability. This has the added value of reducing failures and minimising unscheduled downtime.

Anvol SWX is used in areas of the manufacturing industry where there is high risk of fire such as hot strip mills, coil handling facilities, pipe mills and continuous casters. The risk is minimised by the high fire point and the low heat of combustion of Anvol SWX.

Anvol SWX grades are fully compatible with nitrile (NBR), hydrogenated NBR and fluropocarbon rubbers (FKM). The Seal Compatibility Index is comparable to mineral oils.

Anvol SWX grades meet the requirements of: Factory Mutual Category 1

### Advantages

- High fire point provides superior fire resistance characteristics which creates a safer working environment and greater equipment protection.
- Anvol SWX is shear stable and fire resistant properties are maintained during use.
- Advanced corrosion inhibition protects ferrous components from residual water and leads to extended equipment life and reduced downtime.
- Excellent resistance to oxidation and thermal degradation reduces sludges, varnish and prevents valve sticking. This ensures longer system life and longer drain periods.
- Good antiwear performance gives excellent wear protection and reduces downtime from unscheduled maintenance.

## Typical Characteristics

Name	Method	Units	46	68
Density @ 15°C / 59°F	ISO 12185 / ASTM D4052	kg/m <sup>3</sup>	920	930
Kinematic Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm <sup>2</sup> /s	46	68
Kinematic Viscosity @ 100°C / 212°F	ISO 3104 / ASTM D445	mm <sup>2</sup> /s	10	13
Viscosity Index	ISO 2909 / ASTM D2270	-	180	185
Pour Point	ISO 3016 / ASTM D97	°C	-40	-20
Flash Point - open cup method	ISO 2592 / ASTM D92	°C	>300	>300
Fire Point	ISO 2592 / ASTM D92	°C	>360	>360
Foam Sequence I - Tendency	ISO 6247 / ASTM D892	ml @ 25°C	<50	<50
Water Separation @ 54°C / 129°F	ISO 6614 / ASTM D1401	min < 3 ml emulsion	<15	<15
Air Release @ 50°C / 122°F	ISO 9120 / ASTM D3427	min	5	8
FZG Gear Load Capacity	ASTM D5182	Failure Load Stage	12+	12+
Rust test - DI / synth seawater (24 hrs)	ISO 7120 / ASTM D665A/B	-	Pass/Pass	Pass/Pass
Oxidation Stability - Rotating Pressure Vessel test	ASTM D2272	min	200	225

## Additional Information

Unlike some HFDU products Anvol SWX does not use polymeric materials in order to pass spray ignition type tests. These polymeric materials can rapidly shear in service and this leads to a loss of the claimed spray test performance and also to a significant reduction in viscosity. The selection of Anvol SWX for use in a hazardous environment should be based on its high fire point and lower calorific output (based on Factory Mutual Group 1 classification). A risk assessment should always be carried out whenever there is a need to select any type of fire resistant hydraulic fluid, based on factors such as the potential sources of ignition, fire prevention measures in place and potential consequences of a fire.

Anvol SWX  
 29 Nov 2021  
 Castrol, the Castrol logo and related marks are trademarks of Castrol Limited, used under licence.

This data sheet and the information it contains is believed to be accurate as of the date of printing. However, no warranty or representation, express or implied, is made as to its accuracy or completeness. Data provided is based on standard tests under laboratory conditions and is given as a guide only. Users are advised to ensure that they refer to the latest version of this data sheet. It is the responsibility of the user to evaluate and use products safely, to assess suitability for the intended application and to comply with all applicable laws and regulations. Material Safety Data Sheets are available for all our products and should be consulted for appropriate information regarding storage, safe handling, and disposal of the product. No responsibility is taken by either BP plc or its subsidiaries for any damage or injury resulting from abnormal use of the material, from any failure to adhere to recommendations, or from hazards inherent in the nature of the material. All products, services and information supplied are provided under our standard conditions of sale. You should consult our local representative if you require any further information.

BP Lubricants USA Inc., 1500 Valley Road, Wayne, NJ 07470  
 Telephone: +1-888-CASTROL Product Information: +1-877-641-1600  
[www.castrol.com/en\\_us/b2b/home.html](http://www.castrol.com/en_us/b2b/home.html)