



## Agip ARNICA S



Fast biodegradable hydraulic fluids based on synthetic ester for all hydraulic systems.

### Characteristics (typical figures):

Agip ARNICA S		22	32	46	68	Test	
Viscosity	at 40°C	mm <sup>2</sup> /s	22	31,7	48	62	DIN 51 550
	at 100°C		5,5	7	9,3	11,3	
Viscosity index			205	192	187	180	DIN ISO 2909
Density at 15°C		kg/m <sup>3</sup>	905	911	921	932	DIN 51 757
Flash point o. C.		°C	210	250	370	376	DIN ISO 2592
Pourpoint		°C	-35	-35	-36	-30	DIN ISO 3016
			HVLP/ HEES	HVLP/ HEES	HVLP/ HEES	HVLP/ HEES	
ISO-VG-grade			22	32	46	68	

### Properties and Performance:

**Agip ARNICA S** oils are environmental friendly hydraulic fluids based on selected ester base oils and formulated with a zinc-free additive package, according to the MITI-method almost completely decomposed after 29 days. In order to guarantee a universal application they are based on the performance level of the mineral HLP-oils and complemented by a favourable viscosity grade and a high viscosity index. Great importance had been attached to the protection against wear and corrosion, ageing stability, compatibility to elastomer, high temperature resistance and air release properties to effectively protect the pumps against cavitation and to ensure a high operating security.

**Agip Arnica S** oils have a high fire resistance and therefore reduce the possibility to become inflamed by potential fire sources, proven in the FACTORY MUTUAL STANDARD Spray-Flame-Test.

**Agip ARNICA S** oils are miscible with mineral oil and therefore best suited for the re-oiling of equipment under observation of the conversion guidelines.



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## Applications:

**Agip ARNICA S** oils are multi-purpose hydraulic fluids with a large working temperature range, high viscosity index and good lubricating properties. They can be applied in mobile and working hydraulic systems, hydraulic travelling mechanism and control hydraulic systems, where the risk of entering the environment exists, also as HDFU-fluids in hydraulic systems where due to the presence of high-temperature materials there is a potential fire risk.. The range of application is substantially bigger than that of vegetable-oil-based lubricants.

Please observe the manufacturer's specifications when selecting products.

## Additional physical-technical data:

Agip ARNICA S			22	32	46	68	Test
Corrosion effect upon copper	Corr.-grade		1-100 A 3				DIN 51 759
	upon steel	Corr.-grade	0-A/0-B				DIN 51 585
Compatibility with sealing material. HNBR,FKM, NBR1,AU 7 days /80°C rel. volume change	%		>-3/<+10				following ISO 6072 DIN 53 351 T.4
Change of SHORE-A-hardness	SH		>-10/<+10				DIN 53 519 T.2
Decrease of pulling strength	%		>-30				DIN 53 504
Decrease of ultimate elongation	%		>-30				DIN 53 504
Air release property at 50°C	min.	<7	<8	<10	<10		
FZG-Test A/8/90	load stage		>12				DIN 51 354 T.2
Vane pump Ring wear	mg		<120				DIN 51 389 T.2
	Wing wear	mg	< 30				
Foaming behaviour at 25°C	ml		<150/0				ASTM D 892
	at 95°C	ml	<75/0				
	at 25°C after 95°C	ml	<150/0				
Upper application temperature	°C	120	120	130	130		

VIIIth Report of Luxemburg - **HDFU**

## Specifications:

HVLP/HEES