



# TPS<sup>®</sup> and VPS ANTI-WEAR AND EXTREME PRESSURE ADDITIVES

			TPS 20	TPS 32	TPS 44
<b>Chemical descriptive</b>			Dialkyl trisulfide	Dialkyl pentasulfide	Dialkyl trisulfide
<b>CAS number</b>			68425-15-0	68425-15-0	68937-96-2
<b>EINECS registration</b>			270-335-7	270-335-7	273-103-3
		Method			
<b>Sulfur content (weight %)</b>		ASTM D 4294	21.5	30.5	44
<b>Active Sulfur @ 150°C (weight %)</b>		ASTM D-1662	4	23	18
<b>Kinematic viscosity @ 40°C (mm<sup>2</sup>/s)</b>		ASTM D-445	53	164	5
<b>Flash Point (°C)</b>		Closed Cup ASTM-D 93	139	139	93
		Open Cup ASTM D 92	175	163	114
<b>Color</b>		Gardner ASTM-D 1544	2	6	4
		ASTM-D 1500	0.3	1	0.5
<b>Pour Point (°C)</b>		ASTM- D97-96a	≤ -20°C	≤ -20°C	≤ +10°C
<b>Copper Corrosion</b> Loading = 2% in ISO VG32 paraffinic base oil Time = 3h, Temperature = 100°C		ASTM-D 130	1a-1b	4a-4c	1a-1b
<b>Four Ball test* (Welding Load, kg)</b>		ASTM-D 2783	315	500	400
<b>Metalworking fluids</b>	Machining	Ferrous	•	•	
		Non-Ferrous	•		
	Forming	Ferrous	•	•	
		Non-Ferrous	•		
	(semi-) synthetic fluids		•	•	
	Gear Oils		•		•
Greases		•	•	•	

(\*) 5% by weight in a paraffinic base oil