

# EMERY<sup>®</sup> Synthetic Lubricant Basestock

Technical Data Sheet #872E -7/2000

## EMERY<sup>®</sup> 2911 SYNTHETIC LUBRICANT BASESTOCK

EMERY<sup>®</sup> 2911 synthetic lubricant basestock isodecyl pelargonate exhibits unusually low viscosity characteristics, and is especially suitable for extremely low temperature applications.

EMERY<sup>®</sup> 2911 provides the formulator with an economical blending fluid for low temperature modification of industrial and automotive lubricants. Additionally, EMERY<sup>®</sup> 2911 possesses the flash point and volatility characteristics of low viscosity (75 SUS) solvent-extracted naphthenic oils.

EMERY<sup>®</sup> 2911 is suitable for use in formulating all-weather automatic weapons lubricants (DoD-L-85336).

### Typical Characteristics

Table 1

	EMERY <sup>®</sup> 2911	Test Methods
Viscosity, cSt		ASTM D-445
100°C	1.7	
40°C	4.8	
-18°C	39.5	
-40°C	190	
-54°C	760	
210°F	1.8	
100°F	5.1	
Viscosity, SUS		ASTM D-2161
210°F	31.9	
100°F	42	
Viscosity index	145	ASTM D-2270
Acid value, mg KOH/g	0.05	ASTM D-974
Hydroxyl value, mg KOH/g	1.0	Emery 116.02
Pour point, °C (°F)	-72 (-100)	ASTM D-97
Flash point, °C (°F)	172 (340)	ASTM D-92
Fire point, °C (°F)	184 (360)	ASTM D-92
Refractive index, 25°C	1.4406	ASTM D-1218
Specific gravity, 60/60°C	0.867	ASTM D-4052
Density, g/l, 15.6°C (lbs./gal., 60°F)	867 (7.22)	By conversion

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**Rubber Swell Properties of  
EMERY® 2911 Synthetic  
Lubricant Basestock Table 2**


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H rubber	
70°C (158°F), 72 hrs.	
Volume swell, %	+16
70°C (158°F), 168 hrs.	
Volume swell, %	+16
F rubber	
175°C (347°F), 72 hrs.	
Volume swell, %	+11
Tensile strength, %	-6
Elongation, %	+8
Shore A hardness,	-7
200°C (392°F), 72 hrs.	
Volume swell, %	+14
Tensile strength, %	-33
Elongation, %	+4
Shore A hardness,	-19
204°C (400°F), 72 hrs.	
Volume swell, %	+14
Tensile strength, %	-39
Elongation, %	-3
Shore A hardness,	-12
Silicone rubber	
150°C (302°F), 72 hrs.	
Volume swell, %	+11
Tensile strength, %	-56
Elongation, %	-13
Shore A hardness,	-14
177°C (350°F), 72 hrs.	
Volume swell, %	+15
Tensile strength, %	-75
Elongation, %	-9
Shore A hardness,	-24
L rubber (Nitrile)	
70°C (158°F), 168 hrs.	
Volume swell, %	+44

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We are dedicated to the safe operation of our manufacturing plants and facilities, the health and safety of our employees, and to protection of the environment. As a member of the Chemical Manufacturers Association in the United States, Cognis is committed to the implementation of the Responsible Care® initiative. Cognis also follows the guidelines of other leading industry organizations in other parts of the world in safety, health and the environment.

Effective January 1, 2000, the Henkel Corporation Chemicals Group became Cognis Corporation.

