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REPORT OF TEST

Mfg. Date: 20-Nov-96		CANNON® CERTIFIED VISCOSITY STANDARD			Net Contents 0.47 liter (1 Pint)
Viscosity Standard: N10		Lot No.: 97101	Use before: 31 March 1998		
Temperature		Kinematic Viscosity	Viscosity	Density	Saybolt Viscosity
°C	°F	mm ² /s, (cSt)	mPa·s, (cP)	g/mL	seconds
20.00	68.00	21.86	18.98	0.8684	
25.00	77.00	17.54	15.17	0.8651	
37.78	100.00	10.80	9.255	0.8567	
40.00	104.00	10.02	8.574	0.8552	
98.89	210.00	2.567	2.096	0.8164	
100.00	212.00	2.523	2.058	0.8157	
All data are traceable to the National Institute for Standards and Technology					

This report of test shall not be reproduced except in full, without the written approval of Cannon Instrument Company.

The Cannon Instrument Company certifies that the kinematic viscosities were determined by the Master Viscometer technique reported in the Journal of Research of the National Bureau of Standards, (Vol. 52, No. 3, March 1954, Research Paper 2479) and Cannon Laboratory Standard viscometer. The above data are based on the primary standard, water at 20°C (ITS-90), with a viscosity of 1.002 mPa·s as adopted by the NIST, ASTM and ISO. See also ASTM methods D2162, D445, D446, D2161, D2171 and ISO 3104, 3105 and 3666. This material ceases to be a standard after the date of issue of this certificate. Manufactured in the U.S.A.


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ANALYSIS OF DATA

Kinematic viscosity measurements at temperatures of 20 through 40 deg C have been made using Cannon and Cannon-Ubbelohde (long-capillary) Master viscometers, as described in ASTM D2162. Measurements at lower and higher temperatures have been made using Cannon-Ubbelohde Laboratory Standard viscometers. Over the temperature range of 20 to 100 deg C, the coefficient of variation is less than 0.025%. At -40 deg C, the coefficient of variation is less than 0.040%. The estimated accuracy of the measurements (relative to the primary standard, water) is as follows:

Range of Kin Vis mm ² /s	Standard Error	Total Uncertainty
up to 1000	±0.10%	±0.3%
1000 to 10,000	±0.12%	±0.4%
10,000 to 100,000	±0.20%	±0.6%

The assigned accuracy of the primary viscosity standard at 20 deg C (ITS-90) is ± 0.25%. See ISO 3666.

The estimated precision of density measurements for liquids having a kinematic viscosity less than 1000 mm²/s is ± 0.0001 g/mL. For liquids of kinematic viscosity from 1000 to 100,000 mm²/s, the estimated accuracy of density is ± 0.0002 g/mL.

Temperature measurements are traceable to the National Institute for Standards and Technology, Test No. 246089.

Viscosity Standards S3 through S600
and N35 through N600

CAS No.: 8012-95-1 FORMULATION: Mineral Oil (100%)
CHEMICAL HAZARD: Not applicable
HEALTH HAZARD: Contact may cause irritation of skin, eyes, and mucous membranes. Inhalation of vapor may cause irritation of respiratory passages.
FIRST AID PROCEDURES: Skin: Wash with soap and water. Eyes: Flush with water. Inhalation: Remove to fresh air. Ingestion: Get medical assistance. Do not induce vomiting.

DOT: Not regulated

EPA: Not regulated

Viscosity Standards S2000 through S30000
and N1000 through N30000

CAS No.: 9003-28-5 FORMULATION: Poly (1-butene)(100%)
CHEMICAL HAZARD: Not applicable
HEALTH HAZARD: Contact may cause irritation of skin, eyes, and mucous membranes. Inhalation of vapor may cause irritation of respiratory passages.
FIRST AID PROCEDURES: Skin: Wash with soap and water. Eyes: Flush with water. Inhalation: Remove to fresh air. Ingestion: Get medical assistance. Do not induce vomiting.

DOT: Not regulated

EPA: Not regulated

CANNON INSTRUMENT COMPANY

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M. K. Gerfin
Director of Quality Assurance

Cannon Instrument Company is actively seeking ISO 9002 registry

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