TECHNICAL DATA SHEET

AD-40 Fluorinated Engineering Fluid

Description and Applications

AD-40 is a fully fluorinated fluid. Thus, it is non-flammable, chemically inert and thermally stable, non-conductive and low toxicity. With these properties, AD-40 is designed for the following industrial and electronic applications:

- Heat transfer fluid for semiconductor, data centers, aviation electronics, power electronics and high-performance computing
- Electronics testing and liquid burn-in testing and environment stress screening.

Physical Properties

Properties	**AD-40 Value**
Appearance	Clear, colorless liquid
Average Molecular Weight	650 (g/mol)
Boiling Point (1 atm)	165 (℃)
Pour Point	-57 (℃)
Vapor Pressure	0.29 (kPa)
Liquid Density	1855 (kg/m^3)
Kinematic Viscosity	2.2 (cSt)
Absolute Viscosity	4.1 (cP)
Liquid Specific Heat	1100 ($J/Kg^{-1}\,{}^oC^{-1}$)
Liquid Thermal Conductivity	0.065 ($W/m\,{}^oC^{-1}$)
Refractive Index	1.29
Surface Tension	16 (mN/m)
Ozone Depletion Potential	0
Flash point	None
Dielectric Constant	1.9
Dielectric Strength, 0.1” gap	＞40kV
Volume resistivity	10^{15}（Ohm-cm）
Global Warming Potential（GWP）	~6000

Materials Compatibility

AD-40 is compatible with most metals and plastics, with some limitation with elastomers. Please contact A. D Dawning Material Co. for further recommendations and technical assistance.

ADD: No.198 Jiangsu Road, Qidong Life and Health Industrial Park, Nantong City, Jiangsu Province, China
Fax/Tel: +86-021-58682568 / Mobile: +86 130 0417 0543 / +86 186 1651 4635
E-mail:julius@megachemistry.cn / vivianzhang@megachemistry.cn

Packaging

5kgs/can（Drum capacity: 4L）
20kgs/Pail（Drum capacity: 15L）
250kgs/Drum （Drum capacity: 200L）

Storage

Store in a tightly closed container and in a cool, dry, well-ventilated area away from incompatible substances.

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