From Monsanto FluiDesign Service...

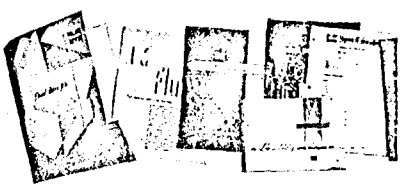
NEW "BLOOD" FOR ELECTRONIC

Coolants for computers... designed inside the circuit!

Pinpointed heat control will be more critical than ever in tomorrow's big computers—to assure *reliability* for the new jobs they'll be called upon to perform. Today, an "air conditioned" room, or perhaps forced-air cooling, keeps temperature of circuits within bounds. But tomorrow's transistorized, *unattended* computers will service oil refining, chemical processing, production lines, radar interpretation—in environments from scorching desert to arctic blizzard. *Safeguard* these "big job" circuits with *packaged* fluid dielectric/coolants—instead of bulky convection cooling or cumbersome forced-air systems. Precise heat control with fluids can make your equipment more reliable—more salable—can help qualify electronic equipment for many new tasks.

MONSANTO FLUIDESIGN SERVICE OFFERS YOU:

1. Sophisticated application experience with fluids
2. Years-ahead research on new types of fluids
3. Time-saving facilities for testing new uses
4. More *job-proven* functional fluids than any other manufacturer in the world
5. Design-oriented *know-how* to help you develop more compact, safer, and more reliable equipment



TYPICAL PROPERTIES OF A FEW MONSANTO FLUIDS	OPERATING TEMPERATURE RANGE (°F)	VISCOSITY (Centistokes @ °F)	POUR POINT (°F)	MAXIMUM LONG TERM BULK TEMPERATURE (°F)	FLASH POINT (°F)
COOLANOL® 35	<−120 to >350	934 @ −65 6.5 @ 100 2.2 @ 210	<−120	350	370
COOLANOL 45	<−85 to >400	2400 @ −65 12.2 @ 100 3.95 @ 210	<−85	400	370
OS-59	−65 to 600	1380 @ −65 6.8 @ 100 2.2 @ 210	<−85	500	370
OS-124*	+40 to 900	363 @ 100 13.1 @ 210	+40	800	550
AROCLOR® 1242	+40 to 600	17.2 @ 100 2.5 @ 210	+2	600	fire resistant...
OS-80	(Preservative Fluid—*non-operational*				
MONOISOPROPYL BIPHENYL*	−40 to 650	75 @ 0 4.6 @ 100 1.42 @ 210	−65	650	315

0509100

*RADIATION RESISTANT

THESE COOLANTS ARE AVAILABLE NOW AND MANY OTHERS

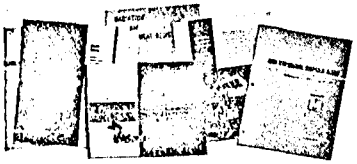
61-OMC-4452 Machine Design, September 14; Product Engineering, September 18; C

TOWOLDMON0048072
WATER_PCB-00035291

BRAINS AND RADAR EYES

Heat control to defy the arctic or tropics!

If you are designing radar "eyes" to operate intelligence networks ranging from the frigid top of the world to the steaming tropics, you'll want to check with Monsanto about coolant fluids that operate reliably from below *minus* 80° F. to over 500° F. These fluids are chemically stable; won't freeze or sludge; do not corrode circulating pumps or the vital "veins" of high-power klystrons, magnetrons, traveling wave, or tropospheric scatter installations. Do you want the *maximum* reliability of pinpoint temperature control—with a *minimum* of mechanical and maintenance problems with the coolant? Monsanto fluids can help you reduce system complexity—while increasing system reliability.



BE SURE TO GET YOUR FACT-PACKED FLUIDESIGN FILE. WRITE ON YOUR LETTERHEAD TO:

Monsanto

Monsanto Chemical Company
Organic Chemicals Division
FluiDesign Service, Dept. 4452
St. Louis 66, Missouri

	FIRE POINT (°F)	COEFFICIENT OF THERMAL EXPANSION (per °F)	SPECIFIC GRAVITY @ 25°/25°C or M. Pt.	SPECIFIC HEAT @ 25°C or M. Pt. BTU/lb/°F	THERMAL CONDUCTIVITY BTU/hr/ft²/ft/°F
	430	**0.00047**	**0.89**	**0.45**	**0.079**
	430	**0.00048**	**0.89**	**0.45**	**0.080**
	435	**0.00046**	**0.88**	**0.45**	**0.077**
	660	**0.00033**	**1.204**	**0.365**	**0.075**
	does not support combustion	**0.00038**	**1.38**	**0.29**	**0.058**
***product*—protects systems in storage)**					
	340	**0.00045**	**1.00**	**0.40**	**0.070**

ARE UNDER DEVELOPMENT FROM NEW BASE STOCKS

ol Engineering, October; Electro-Technology, October; EDN Magazine, November, 1961.

0509101

TOWOLDMON0048073
WATER_PCB-00035292