

## BASIC PRODUCT DESCRIPTIONS: DOWTHERM SR-1 AND DOWTHERM 4000 HEAT TRANSFER FLUIDS

DOWTHERM SR-1 fluid is a formulation of 95.4 percent ethylene glycol and a specially designed package of industrial corrosion inhibitors. The fluid is dyed fluorescent pink for leak detection purposes. It has an operating temperature range of -60°F to 250°F (-51°C to 121°C) and solutions in water provide freeze protection to below -60°F (-51°C) and burst protection to below -100°F (-73°C).

DOWTHERM 4000 fluid is a formulation of 92.4 percent ethylene glycol and a specially designed package of industrial corrosion inhibitors. The fluid is dyed fluorescent orange to aid in leak detection. It has an operating temperature range of 60°F to 350°F (-51°C to 177°C) and solutions in water provide freeze protection to below -60°F (-51°C) and burst protection to below -100°F (-73°C).

Both fluids are practically odorless and are moderate in acute oral toxicity. They offer excellent freeze and corrosion protection without significant reduction in heat transfer performance. These fluids are hygroscopic at low temperatures, which means they attract moisture from the surrounding atmosphere—important in dehumidification

applications. Both fluids are non-flammable in solutions up to 80 percent glycol in water. Table 1 highlights typical specifications of DOWTHERM SR-1 and DOWTHERM 4000 heat transfer fluids. Table 2 provides electrical conductivity data for DOWTHERM SR-1 fluid. Table 3 provides freezing and boiling points for DOWTHERM SR-1 and DOWTHERM 4000.

**Table 1 — Typical Product Physical Properties<sup>†</sup>**

	DOWTHERM SR-1 Heat Transfer Fluid	DOWTHERM 4000 Heat Transfer Fluid
Composition (% by weight)		
Ethylene Glycol	95.4	92.4
Inhibitors & Water	4.6	7.6
Color	Fluorescent Pink	Fluorescent Orange
Specific Gravity (at 60/60°F)	1.122 — 1.1320	1.133 — 1.143
pH of Solution (50% glycol)	9.0 — 10.5	8.5 — 9.0
Reserve Alkalinity (min.)	12.0 ml	23.0 ml

<sup>†</sup>Typical properties, not to be construed as specifications.  
Complete sales specifications are available on request.

**Table 2 — Electrical Conductivity of  
DOWTHERM SR-1 Fluid**

Weight % Glycol	Temperature °C	Electrical Conductivity mhos/cm (S)
0	25	9.69 x 10 <sup>-7</sup>
12.5	25	2.45 x 10 <sup>-3</sup>
25.0	25	3.48 x 10 <sup>-3</sup>
50.0	25	3.42 x 10 <sup>-3</sup>
100.0	25	8.66 x 10 <sup>-4</sup>
0	0	9.69 x 10 <sup>-7</sup>
12.5	0	1.39 x 10 <sup>-3</sup>
25.0	0	1.74 x 10 <sup>-3</sup>
50.0	0	1.56 x 10 <sup>-3</sup>
100.0	0	3.29 x 10 <sup>-4</sup>

