

Header:

Business Unit: Industrial  
 Industry Team: PF2  
 Supplier: Dow Chemical  
 Product Line: Dowtherm Glycol Thermal Fluids  
 Last Updated: 2015 Q2

## Dowtherm Glycol Thermal Fluids – Dow Chemical

Dowtherm Glycol thermal fluid products are used to transfer heat effectively and affordably. Dowtherm Glycol thermal fluids are a cheap, but toxic, means of providing freeze protection while still allowing for relatively high heat transfer efficiency. The product line applications include: Hot water heating (radiant floor heating), Ground Source Heat Pumps (GSHP), Snow melt systems, Chill water (HVAC), Boiler Jackets, Laser Coolants, Thermal Energy Storage (TES), Ice skating rinks.

Terms & Definitions	
Glycol	Organic liquid with alcohol like properties manufactured from hydrocarbon feed-stocks
Ethylene Glycol (EG)	C <sub>2</sub> H <sub>6</sub> O <sub>2</sub> (C2 diol)
Inhibitor	Tolytriazole or dipotassium phosphate additive to prevent corrosion
Dowtherm	Dow formulation consisting of about 95% EG and 5% corrosion inhibitors

### What Does It Do?

DOWTHERM SR1 inhibited ethylene glycol (EG) is comprised of about 95% EG and 5% corrosion inhibitors. DOWTHERM SR1 has a bright fluorescent pink color and is the most popular EG based product within the Dow portfolio. In fact DOWTHERM SR1 is the most widely recognized brand name in the industry. It offers effective heat transfer over a wide temperature range: from -20 F to 250 F and provides freeze protection down to -60 F.

DOWTHERM 4000 inhibited ethylene glycol (EG) is comprised of about 92% EG and 8% corrosion inhibitors and has a bright fluorescent orange color. The lower EG content allows for a higher concentration of corrosion inhibitors which in turn means DOWTHERM 4000 is capable of operating at higher temperatures than DOWTHERM SR1 i.e. from -20 F to 350 F. This makes DOWTHERM 4000 a higher end, niche type product which is also capable of providing freeze protection down to -60 F.

### Where Is It Used?

Key Industries	Key Applications (regardless of industry)
<ul style="list-style-type: none"> <li>Mechanical Contracting</li> <li>Manufacturing</li> <li>Industrial Processes</li> </ul>	<ul style="list-style-type: none"> <li>Provide a cheap and effective form of freeze protection</li> <li>Prevent corrosion</li> </ul>

### Key Benefits, Values & Characteristics:

- Virgin Dow Puraguard Glycol
- Free Sample Testing
- Technical Support

### **Primary Qualifying Questions/GAP Questions:**

- 1) Do you use **inhibited** propylene glycol?
- 2) For what application will you use inhibited propylene glycol?
- 3) What blend (or concentration) of inhibited propylene glycol do you need?

### **Industry Special Considerations:**

- ChemPoint's channel is providing product/service to the USA (less oil and gas)
- Always send an MSDS with a quote to ensure the customer is getting what they ask for
- We are one of many Dow channels, so you may run across the exact same material offered by a competitor
- Major non Dow channel competitors include Interstate, Houghton, Huntsman
- These are not to be sold into food applications
- This product must be mixed with deionized or distilled water
- Dowtherm SR1 is pink, Dowtherm 4000 is orange