The Most Trusted Fluids for the Oil & Gas Industry
When you’re hundreds of miles from shore, you need fluids you can count on to meet the unique demands of offshore production. The Dow Chemical Company has been the world’s premier supplier of heat transfer fluids for more than 75 years. With back-integration to key raw materials and a broad distribution network, we can provide the product you need, when you need it.

NORKOOL™ industrial coolants and DOWTHERM* synthetic organic heat transfer fluids set the Oil & Gas Industry standard for protection, performance, and long-term operating economics. That’s why companies look to Dow for fluids that can help manage the challenges of ultra-deep offshore reservoirs – including high temperatures and pressure – as well as the need to manage energy use, system maintenance, anti-scaling technology which acts synergistically with proven NORKOOL corrosion inhibitors to protect steels, cast iron, copper alloys, and solders. Plus, NORKOOL LTC Propylene Glycol (PG)-based coolants are now available for lower toxicity and reduced environmental concern.

NORKOOL Coolants for Circulating Cooling Systems
The deeper the reservoir, the hotter the gas. Heat exchangers containing NORKOOL inhibited glycol-based coolants as an intermediate fluid lower the temperature of the gas coming out of the ground while providing outstanding protection against corrosion and circulation system freeze-up.

With a broad temperature range, from -60ºF (-51ºC) to 275ºF (135ºC), a platform-wide circulating system containing NORKOOL coolant can meet a wide range of cooling requirements under almost any conditions. All NORKOOL coolants are enhanced with patented Dow anti-scaling technology which acts synergistically with proven NORKOOL corrosion inhibitors to protect steels, cast iron, copper alloys, and solders. Plus, NORKOOL LTC Propylene Glycol (PG)-based coolants are now available for lower toxicity and reduced environmental concern.

DOWTHERM Heat Transfer Fluids for Waste Heat Recovery
Energy efficiency matters in offshore platform operations, especially when the energy used to power the platform comes from the natural gas you’re producing. By recovering waste heat from the production process and using it elsewhere on the platform, you maximize energy efficiency. DOWTHERM synthetic organic heat transfer fluids – and especially DOWTHERM Q fluid – offer exceptional thermal stability that translates into more efficient heat transfer, longer fluid life, less system maintenance, and optimum operating economics in waste heat recovery units. With vapor pressure lower than steam, DOWTHERM Q fluid offers long-term advantages in applications with moderate temperature requirements above 500°F (260°C) where a more stable, economical replacement for hot oils is required.

*Trademark of The Dow Chemical Company.
### DOWTHERM Synthetic Organic Fluids

<table>
<thead>
<tr>
<th>Fluid</th>
<th>Temp. Range, °C (°F)</th>
<th>Full Boiling Point, °C (°F)</th>
<th>Acute Oral Toxicity†††</th>
<th>for pH adjustment</th>
<th>for azole based re-inhibitor</th>
<th>for phosphorus &amp; nitrite based re-inhibitor</th>
<th>Low Temperature Pumpability</th>
<th>Antioxidant Operating By Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOWTHERM A</td>
<td>15 to 400</td>
<td>80 to 750</td>
<td>▲</td>
<td>■</td>
<td>■</td>
<td>▲</td>
<td>▲</td>
<td>■</td>
</tr>
<tr>
<td>DOWTHERM G</td>
<td>7 to 370</td>
<td>120 to 680</td>
<td>▲</td>
<td>■</td>
<td>■</td>
<td>▲</td>
<td>▲</td>
<td>■</td>
</tr>
<tr>
<td>DOWTHERM HT</td>
<td>0 to 345</td>
<td>215 to 650</td>
<td>▲</td>
<td>■</td>
<td>■</td>
<td>▲</td>
<td>▲</td>
<td>■</td>
</tr>
<tr>
<td>DOWTHERM Q</td>
<td>-35 to 330</td>
<td>(3 to 625)</td>
<td>▲</td>
<td>■</td>
<td>■</td>
<td>▲</td>
<td>▲</td>
<td>■</td>
</tr>
<tr>
<td>DOWTHERM RP</td>
<td>-4 to 350</td>
<td>(-20 to 660)</td>
<td>▲</td>
<td>■</td>
<td>■</td>
<td>▲</td>
<td>▲</td>
<td>■</td>
</tr>
<tr>
<td>DOWTHERM MX</td>
<td>-23 to 330</td>
<td>(-10 to 625)</td>
<td>▲</td>
<td>■</td>
<td>■</td>
<td>▲</td>
<td>▲</td>
<td>■</td>
</tr>
<tr>
<td>DOWTHERM T</td>
<td>-10 to 268</td>
<td>(14 to 550)</td>
<td>▲</td>
<td>■</td>
<td>■</td>
<td>▲</td>
<td>▲</td>
<td>■</td>
</tr>
<tr>
<td>DOWTHERM J</td>
<td>80 to 315</td>
<td>(-110 to 605)</td>
<td>▲</td>
<td>■</td>
<td>■</td>
<td>▲</td>
<td>▲</td>
<td>■</td>
</tr>
</tbody>
</table>

††† When used in industrial applications.

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### Performance & Recommended Applications

#### Ethylene Glycol-based Coolants

- NORKOOL SL50: Concentrate
- NORKOOL SL40: Pre-diluted 50% vol% as EG
- NORKOOL SL30: Pre-diluted 40% vol% as EG
- NORKOOL SL20: Pre-diluted 30% vol% as EG

#### Propylene Glycol-based Coolants

- NORKOOL LTC: Concentrate
- NORKOOL LLC: Pre-diluted 50% vol% as PG
- NORKOOL LCC: Pre-diluted 40% vol% as PG
- NORKOOL LDC: Pre-diluted 30% vol% as PG

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### Circulating System Maintenance Products

#### Replacement Inhibitors

- NORKOOL Corrosion Inhibitor 213: for pH adjustment
- NORKOOL HP Corrosion Inhibitor 219: for azole based re-inhibitor
- NORKOOL HP Corrosion Inhibitor 231: for phosphorus & nitrite based re-inhibitor
- NORKOOL HP Corrosion Inhibitor 234: for molybdenum based re-inhibitor

#### System Cleaners/Degreasers

- NORKOOL System Cleaner: Mixture of chelating agents for rust and scale removal
- NORKOOL System Degreaser: Mixture of nonionic and anionic surfactants for grease removal

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### NORKOOL Industrial Coolants

Choose the Right Coolant for Your Application

- **Ethylene Glycol-based Coolants**
  - NORKOOL SL50
  - NORKOOL SL40
  - NORKOOL SL30
  - NORKOOL SL20
- **Propylene Glycol-based Coolants**
  - NORKOOL LTC
  - NORKOOL LLC
  - NORKOOL LCC
  - NORKOOL LDC

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### To Learn More

- **Contact Dow toll-free at:**
  - **1-800-447-4368 (U.S. and Canada)**
  - **989-832-1560 (Other Global Areas)**

- **www.norkool.com**
- **www.dowtherm.com**