Calumet refineries have over 90 years of experience manufacturing Specialty Process Oils. Our extensive CALSOL product line of Naphthenic and Paraffinic base stocks are engineered to meet your rigorous requirements.
CALSOL™ Specialty Process Oils

CALSOL™ Naphthenic and Paraffinic Base Oils by Calumet

Calumet Specialty Products Partners, L.P. produces naphthenic and paraffinic base oils by using a multi-stage hydrotreating process operating at pressures above 2500 psi. This process offers the unique ability to produce base stocks that meet currently established performance standards.

CALSOL specialty process oils are refined from a select blend of crude oil using a state-of-the-art, multistage hydrogenation process. This severe hydrotreating process offers the unique ability to produce specialty process oils that meet currently established performance standards for a variety of applications. The quality control practices that Calumet implements regarding crude oil selection and subsequent refining processes ensure consistent uniformity and product performance.

WHO WE ARE

Calumet Has Over 90 Years of Experience Producing High-Quality Base Oils

Specialized Expertise
With over 90 years of experience producing high-quality base oils, we’ve honed the craft of consistent, quality production.

Cost-Effective Supplier
Our centrally located base oil refineries and blending/distribution terminals offer convenient rail and truck access.

Proven Partner
Calumet base oils are used by top companies and well-known brands across the globe.

Research & Development
Our network of leading R&D and technical expertise is integrated into the development and support of every product we produce.

Formulation Flexibility
With nearly 600 unique base oil products, our product portfolio offers a wide range of viscosity and solvency characteristics.

Forward Thinking
Ongoing investments support new product development, operational excellence and ISO-9000 quality-related initiatives.

www.calumetspecialty.com
COMMITTED TO EXCELLENCE

The CALSOL™ Specialty Process Oils Line
Offer a Broad Range of Options for the
Chemical and Manufacturing Industries

CALSOL™ Specialty Process Oils

CALSOL™ 5 Series
NON-STAINING NAPHTHENIC PROCESS OILS

When the highest levels of color stability, oxidation and aging resistance are required, the CALSOL 5 Series is simply the "Best of the Best."

- Low Aromatic Levels
- Very Low Polar Compound Levels
- Extremely Low UV Absorptivity

The CALSOL 5 Series is an ideal choice whenever the balance of hardness and color stability is critical. For example: thermoplastics, radial and styrene elastomers.

CALSOL™ 8 Series
HIGH VISCOSITY-GRAVITY CONSTANT (VGC) PROCESS OILS

Offering color stability, elastomer compatibility, and strong process characteristics, the CALSOL 8 Series aligns with current industry standards and provides optimum compatibility and performance in elastomeric rubber applications.

- Low Volatility
- Moderate Aniline Points
- Very Low Polar Compound Levels

The CALSOL 8 Series is available in a wide range of viscosities and exhibits the balance of properties that also make them the preferred choice for non-rubber applications such as EPDM Compounding, PVC, textiles, and caulking compounds.

CALSOL™ P9 Series
HIGHLY-REFINED PARAFFINIC PROCESS OILS

Providing excellent color stability without sacrificing elastomer compatibility and process characteristics, the CALSOL P9 Series is aligned to current elastomeric rubber industry standards.

- Low Aniline Points
- Very Low Polar Compound Levels

The CALSOL P9 Series is available in a wide range of viscosities and exhibit the balance of properties that also make them the preferred choice for non-rubber applications such as EPDM Compounding, PVC, textiles, and caulking compounds.

OIL SELECTION GUIDE
CALSOL™ Specialty Process Oil and Extender Oils

APPLICATION OBJECTIVE

Compounding Polymer | General Purpose | Maximum Compatibility | Maximum Color Stability | Maximum Volatility | Low Temp Flexibility | High Temp Resistance |
---|---|---|---|---|---|---|
Butyl (IIR) | P010 thru P0250** | P010 | P190 | P910 thru P5260S** | P010 | P9250 thru P5160S** |
Ethylene Propylene (EPR) (EPM) | P010 thru P0250** | P010 | P910 thru P5260S** | P010 | P9250 thru P5160S** |
Polybutadiene (BR) | P010 thru P0250** | P010 | P910 thru P5260S** | P010 | P9250 thru P5160S** |
Styrene-Butadiene (SBR) | P010 thru P0250** | P010 | P910 thru P5260S** | P010 | P9250 thru P5160S** |
Thermoplastic, Olefinic | P010 thru P0250** | P010 | P910 thru P5260S** | P010 | P9250 thru P5160S** |

** Specific grade used depends on volatility requirements

Maximum Oil Loading (PHR) for Various Neoprenes

<table>
<thead>
<tr>
<th>Grade</th>
<th>GNA</th>
<th>W</th>
<th>WHV</th>
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<td>CALSOL 510</td>
<td>15</td>
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<td>CALSOL 810</td>
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<td>CALSOL 8240</td>
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OSHA Hazardous Communication Status
CALSOL specialty process oils do not require labeling as carcinogenic under the OSHA Hazard Communication Standard.

FDA Status
CALSOL specialty process oils meet requirements of FDA 21 CFR 178.3620(c)

Non-Staining Naphthenic Process Oils
High Viscosity-Gravity Constant (VGC) Process Oils
Highly-Refined Paraffinic Process Oils

www.calumetspecialty.com
<table>
<thead>
<tr>
<th>Physical Properties*</th>
<th>ASTM Method</th>
<th>CALSOL™ 8 Series</th>
<th>CALSOL™ 8 Series</th>
<th>CALSOL™ 5 Series</th>
<th>CALSOL™ 9 Series</th>
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<tbody>
<tr>
<td>Viscosity, cSt / 40°C</td>
<td>D445</td>
<td>9.5</td>
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<td>Viscosity, cSt / 100°C</td>
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<td>Viscosity, SUS / 210°F</td>
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<td>API, Gravity, 60°F (15°C)</td>
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<td>26.3</td>
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<tr>
<td>Specific Gravity, 60°F (15°C)</td>
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<td>Viscosity-Gravity Constant</td>
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<td>Weight, Lbs / Gal</td>
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*All product specifications are typical values, unless otherwise noted.

**CALSOL™ Specialty Process Oils**

**CALSOL™ 8 SERIES**
High Viscosity-Gravity Constant (VGC) Process Oils

**CALSOL™ 5 SERIES**
Nonstaining Naphthenic Oils

**CALSOL™ 9 SERIES**
Highly Refined Paraffinic Process Oils
For Product or Technical Questions Contact Your Sales Representative or Calumet Product Support

1-800-437-3188
technical@clmt.com

www.calumetspecialty.com

SHIPPING LOCATIONS

Burnham, Illinois
Dickinson, Texas
Karns City, Pennsylvania
Princeton, Louisiana