

HELPING TRANSFORM OIL  
INTO OPPORTUNITY





## TRANSFORMING CRUDE INTO SPECIALIZED PROCESS OIL PRODUCTS

From the day HollyFrontier Specialty Products, an HF Sinclair brand, established itself in business over 100 years ago, our mission has been to develop products that will improve the processes in which they are used. Our unique Sunpar™, Sundex™ and Circosol™ oils are renowned examples of this approach. They deliver the outstanding characteristics that are critical for superb process or product performance. Their excellent purity, uniformity and consistency bring you a powerful opportunity for enhanced productivity and profit.

HF Sinclair's Tulsa refinery is ideally situated within 35 miles of the Cushing, OK pipeline hub. It represents an unequaled

resource as a dependable source of prime crude oil feedstock, guaranteeing you our commitment to support and sustain your production with an unbroken stream of quality product.

HF Sinclair is a diversified, innovative energy company that owns and operates refineries located in Kansas, Oklahoma, New Mexico, Utah, Washington and Wyoming with a production capacity of 678,000 barrels per day of crude oil and 34,000 barrels per day of lubricants.

We look forward to serving you well.

### HOLLYFRONTIER SPECIALTY PRODUCTS, A WORLD-WIDE LEADER IN PROCESS OILS FOR:

Rubber and Polymers

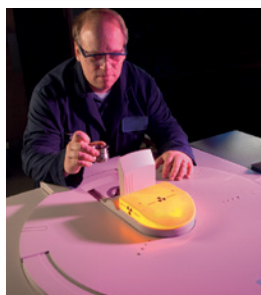
Urethane Rebonding

Dust Control

Coatings

Horticultural Oils

Defoaming



## SUNPAR™, SUNDEX™ & CIRCOSOL™ OILS

TRANSFORMING OIL INTO THE PURITY, UNIFORMITY  
AND FLEXIBILITY THAT'S IDEAL FOR POLYMER  
MANUFACTURERS AND RUBBER COMPOUNDERS



### SUNDEX™ AROMATIC OILS

Unlike other aromatic oils that are residual asphaltic products, Sundex™ oils are extracts specifically controlled to meet uniform requirements. Composed of a high number of condensed aromatic ring carbons, these oils have high solvencies (low aniline points), low volatilities and high weight-per-gallon. Their distinct characteristics offer advantages for many applications, including carriers and plasticizers. Sundex™ oils are available in a wide range of viscosities to provide even greater selection in chemical process applications.

#### SUNDEX™ ADVANTAGES

- Proven performance in a wide variety of applications
- Very low aniline points
- Excellent solvency
- Fast mixing for increased productivity
- High aromatics for improved compatibility
- Minimal nitrogen, sulfur, oxygen and metal bearing compounds

### SUNPAR™ PARAFFINIC OILS

HollyFrontier Specialty Products Sunpar™ Oils are highly saturated due to a large number of paraffinic side chains (55% min. Cp). Their unique composition yields outstanding initial color quality as well as a high resistance to oxidation and color degradation caused by ultraviolet light. High aniline points make Sunpar™ oils ideal for a variety of low solvency applications. Sunpar™ oils are considerably less volatile than naphthenic and aromatic oils of similar viscosity, and de-waxed to low pour points.

#### SUNPAR™ ADVANTAGES

- Consistent product quality
- Proven performance in the most demanding of applications
- High aniline points
- Excellent flash and volatility characteristics
- Low sulfur content and odor free
- Outstanding color and heat stability
- Meets FDA 21 CFR 178.3620(c) criteria
- IP 346 and modified Ames compliance for dermal non-carcinogenicity
- Non-labeled per the OSHA Hazard Communication Standard



## **CIRCOSOL™ RUBBER PROCESS OILS**

Circosol™ clean oils are the most economical, high performance, drop-in replacement oils classified as residual extracts not requiring R45 labeling. They are produced with the same chemical properties and aromaticity as traditional aromatic oils, but without the potentially harmful PAH content of the traditional aromatic oils. Using Circosol™ oils means your rubber compound will benefit from the same proven performance you have developed, without the need to reformulate. With Circosol™ oils there will be no sacrifice in quality, while optimizing the lowest cost solution compared to naphthenic oils.

### **CIRCOSOL™ SERIES:**

- **Circosol™ 8000 EU: Meets the European Standard for non-carcinogenicity**
- **Circosol™ 165: Ideal for SBR emulsions**

## **FDA STATUS**

*Because of the industry's need for mineral oils conforming to specific FDA regulations, all HollyFrontier Specialty Products Process Oils have been tested. All of the Sunpar™ oils described here meet the requirements of a "paragraph c" or "third grade mineral oil" per 21 CFR 178.3620(c). Oils complying with 21 CFR 178.3620(c) may be used as a component of nonfood articles in accordance with the regulation found on the chart below.*

### **176.210**

Defoaming agents used in the manufacture of paper and paper board

### **175.105**

Adhesives

### **178.3910**

Surface lubricants used in the manufacture of metallic articles (rolling of metallic foil and sheet stock)

### **178.3120**

Defoamer, animal glue (Ref: 176.210)

### **175.2800**

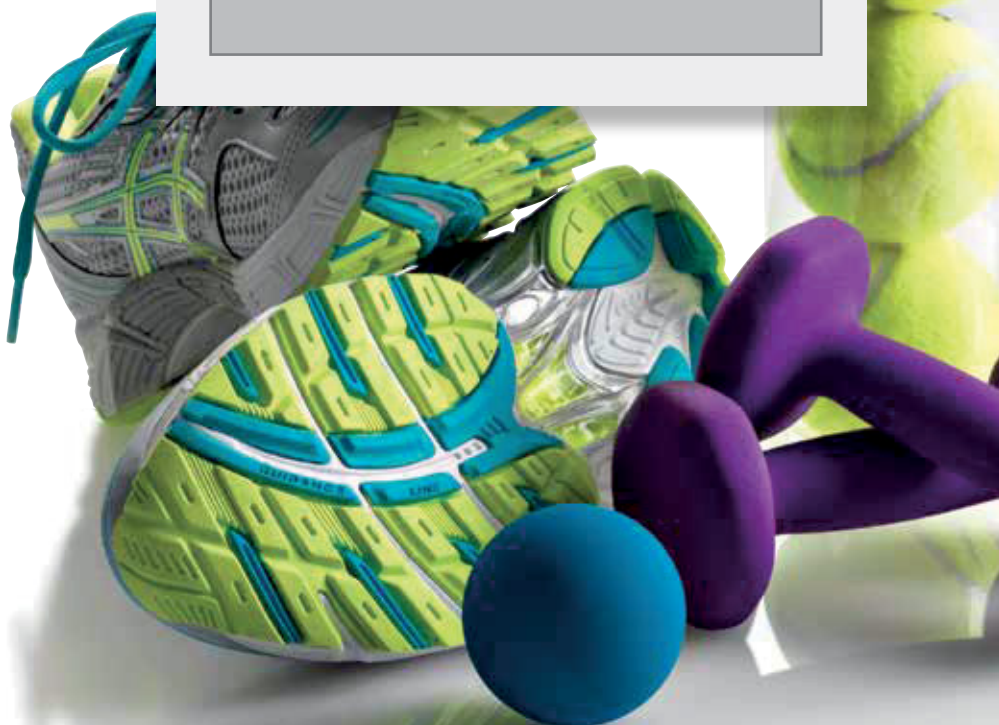
Textiles, resin bonded

### **176.200**

Defoaming agents used in coatings

### **177.2600**

Rubber articles intended for repeated use





## HOLLYFRONTIER SPECIALTY PRODUCTS FCA™, SUNCOAT™ & DCA™ OILS

TRANSFORMING OIL INTO CONSISTENT  
PERFORMANCE AND PRODUCTIVITY



### FCA™ DEFOAMER OILS

HollyFrontier Specialty Products solvent refined oils provide a higher level of solubility and compatibility than is available among the very highly saturated offerings in the paraffinic marketplace. The higher solvency levels help to provide a more stable finished product, and a more homogenized product which leads to less formulation time and lower energy costs. These properties are beneficial in all types of defoaming applications, including coatings, chemicals, paper and waste treatment. These products are expected to perform extremely well in non-chlorinated pulp and paper applications, as well as chlorinated applications where precursor levels are not critical.

#### FCA™ ADVANTAGES

- Low odor and good color stability
- High solvency to help extend shelf life



### SUNCOAT™ COATING OILS

An industry leader in coating oils, HollyFrontier Specialty Products offers a line of low viscosity paraffinic coating oils for the needs of external siding and deck protection products. Suncoat™ 100 is ideal for some of the more stringent applications, including shake, shingle, roof and deck preservatives. Suncoat™ products meet or exceed OSHA criteria for severely treated oils and therefore do not require labeling or handling as potential dermal carcinogens.

#### SUNCOAT™ COATING OIL ADVANTAGES

- VOC reduction capabilities
- Solvency to help solubilize even the toughest fungicides
- Low odor and good color stability
- Excellent dispersion characteristics
- Oxidation resistance



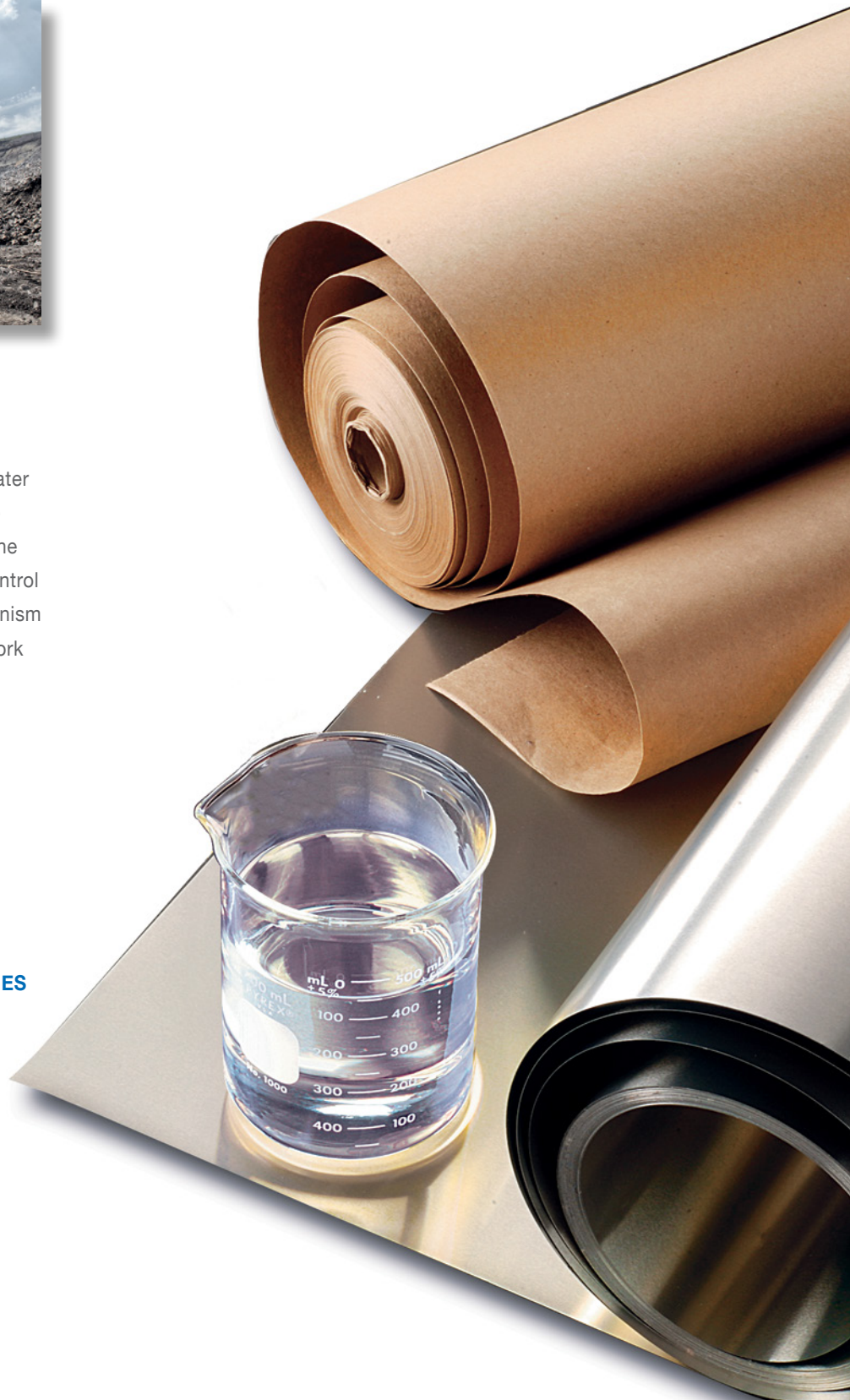
### **DCA™ DUST CONTROL OILS**

Increasingly stringent OSHA and EPA air and water quality regulations require greater attention to migrant dust particulate. The HollyFrontier Specialty Products DCA™ line of emulsified and non-emulsified dust control agents provides a highly effective mechanism of suppression and retention for many work environments and applications including:

- Roads
- Agriculture
- Coal
- Mining
- Building materials
- Energy

### **DCA™ DUST CONTROL OIL ADVANTAGES**

- **Low VOC**
- **Adheres to surface longer than alternatives**
- **Ideal penetration**
- **Cost effective**



## **HOLLYFRONTIER SPECIALTY PRODUCTS HYDROLENE™, WAX, HEAT TRANSFER, & METALWORKING OILS**

THE OILS THAT HELP YOU MAKE WHAT  
YOU MAKE ...BETTER.



### **HYDROLENE™ PERFORMANCE PRODUCTS & ASPHALT MODIFIERS**

Hydrolene™ oils are designed to breathe extended or renewed life into asphalt performance in all facets of paving and roofing. They are optimized for hot and cold recycling, improved polymer-asphalt compatibility, enhanced rejuvenation of high viscosity aged asphalts, and custom blending any grade of asphalt needed. Because every application is unique, Hydrolene™ performance products are offered in varying viscosities, molecular weights, volatilities, brittle points and chemical properties.

#### **HYDROLENE™ ADVANTAGES**

- High aromatic content for excellent initial softening and solvency
- High temperature stability minimizes smoking
- Improved low temperature performance
- High density for lower cost per ton
- Asphaltene-free, helping balance asphaltene vs. maltene content of asphalt
- Improves compatibility of polymer in asphalt

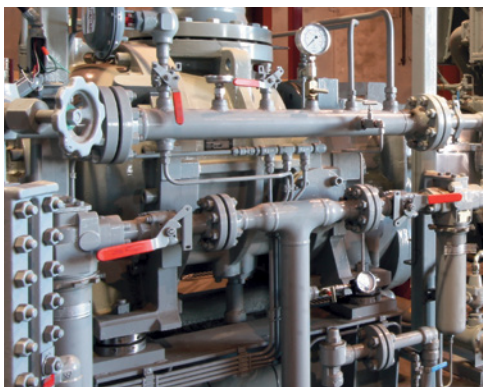
### **HOLLYFRONTIER SPECIALTY PRODUCTS WAX**

HollyFrontier Specialty Products' expertise in wax is the culmination of almost 100 years of leadership in wax technology. From producing a single base grade in 1918 to today's 15 base grades as well as countless custom formulations, HollyFrontier Specialty Products has become the go-to source for high performance paraffinic and microcrystalline waxes. All are solvent-refined at our Tulsa, OK refinery, and then dill-chilled for exceptional consistency. Without question, HollyFrontier Specialty Products waxes will meet your most demanding performance requirements.

#### **HOLLYFRONTIER SPECIALTY PRODUCTS WAX ADVANTAGES**

- A full line of high performance paraffinic and microcrystalline waxes
- Custom blending capability
- Unique ability to meet your most exacting performance requirements
- Unparalleled product flexibility
- Custom service support, from mode of transportation to special delivery requirements





#### **HOLLYFRONTIER SPECIALTY PRODUCTS HEAT TRANSFER OILS**

HollyFrontier Specialty Products Heat Transfer Oils can be an essential part of many manufacturing processes. For temperatures up to 575°F, petroleum oils will serve as an efficient heat transfer media. HollyFrontier Specialty Products Heat Transfer Oils are ideal fluids for this purpose. In properly designed closed systems equipped with expansion tanks, they provide excellent service. They are non-corrosive, relatively low in cost compared to synthetic heat transfer fluids, and are proven by many years of trouble-free operation.

#### **HOLLYFRONTIER SPECIALTY PRODUCTS HEAT TRANSFER ADVANTAGES**

- High solvency to help extend shelf life
- Low odor and good color stability



#### **HOLLYFRONTIER SPECIALTY PRODUCTS METALWORKING OIL**

HollyFrontier Specialty Products Roll Oil is a low viscosity, severely-treated oil for non-ferrous metal rolling operations. It is a highly refined oil, providing metal reduction and surface brightness over a range of roll speeds and pressures.

The relatively low boiling distillation characteristics of HollyFrontier Specialty Products Roll Oil impart rapid burn-off characteristics to minimize stain, varnish, or carbon deposits after annealing.



## HOLLYFRONTIER SPECIALTY PRODUCTS HORTICULTURAL OILS

TRANSFORMING OIL INTO EFFECTIVE CARRIERS  
AND PESTICIDES



### SUN AG™ OILS

#### Highly Refined Carriers for Herbicides

Sun Ag™ Oils are highly refined paraffinic oils that are used in conjunction with herbicides as an adjuvant. As carriers, they provide a better spray pattern than some herbicides used alone. When Sun Ag™ Oils are used with an herbicide, the oil disperses the chemical on the weed foliage for maximum absorption in minimum time.

#### SUN AG™ OIL ADVANTAGES

- Improves spray suspension for better distribution and uniformity of weed killing
- Carries the herbicide through the cuticle and stoma of the leaf
- Retards water evaporation to extend the time for assimilation by plant tissue



### SUNSPRAY™ OILS

#### High Performance, Low Toxicity Insecticides and Acaricides

Sunspray™ pesticidal spray oils are paraffinic oils specifically refined to meet growers' requirements for an extremely effective pesticide with low toxicity. Sunspray™ oils kill pests primarily through the physical action of "smothering" the insects and their eggs. In comparison, most synthetic organic pesticides kill pests by poisoning. Pests can become resistant to these products, whereas there is no documented case where any pest has developed a resistance to a Sunspray™ oil. These Sunspray™ oils provide this protection to a wide variety of crops and climates:

**Sunspray™ 6N and 6E:** Dormant spray oil evaporating quickly and uniformly to provide efficient protection, coupled with a reduced chance of phytotoxicity. Ideal for deciduous fruit production, or as a Spring/Fall citrus spray.





**Sunspray™ 8N:** Designed to combat Yellow Sigatoka, a banana and plantain disease.

**Sunspray™ 11N:** Designed to be more effective during deep dormancy, because it remains on the plant longer.

**Sunspray™ UltraFine:** Provides a wide variety of applications for indoor use.

#### **SUNSPRAY ADVANTAGES**

- **Compatible with Integrated Pest Management (IPM) Programs**
- **Increases the effectiveness of some chemical pesticides**
- **Reduces the amount of some synthetic organic pesticides needed**
- **Available in both the N (neat) or E (emulsified) versions**



# **HOLLYFRONTIER SPECIALTY PRODUCTS COMMITMENT TO EXCELLENT SERVICE**

TRANSFORMING SERVICE AND SUPPORT INTO A PRIORITY

## **HOLLYFRONTIER SPECIALTY PRODUCTS TECHNICAL ASSISTANCE**

To help customers make the best use of HollyFrontier Specialty Products offerings in all applications, our technical specialists are available to answer your questions and provide guidance. This is a resource that is not readily available from commodity suppliers. For immediate and helpful answers to your technical questions, call 1-800-TECH-REP (832-4737).

## **HOLLYFRONTIER SPECIALTY PRODUCTS REACH REGISTRATION**

In accordance with the European Union (EU) REACH legislation, HollyFrontier Specialty Products, as a “non-EU manufacturer,” has designated The Acta Group EU, Ltd (Acta EU) as our Only Representative (OR). Acta EU will retain records of the annual volume of substances imported by customers of HollyFrontier Specialty Products into the EU, and will ensure, where applicable, that the latest hazard communication (i.e., Safety Data Sheet) on these substances is supplied.

## **CERTIFIED ISO 9001**

HollyFrontier Specialty Products oils are produced in strict compliance with statistical process control managed through the latest version of the ISO 9001 Quality Management System to ensure consistent quality.



## **LOGISTICS**

HollyFrontier Specialty Products is proud to offer one of the most efficient and reliable transportation systems in the industry. The core components of the program include safety, information availability, equipment and service. Our fleet of 1,100 rail cars operates out of our centrally located refinery and our strategically located terminals around the country, ensuring prompt bulk delivery.

Our motor carriers operate at an impressive level of on-time delivery, and their performance is monitored through HollyFrontier Specialty Products' "Carrier of the Year" Program. HollyFrontier Specialty Products also offers convenient access to international shipments by sea, as well as shipments using Flexibag and ISOTANK.

## **ELECTRONIC INFORMATION SYSTEM (EIS)**

The technology at the heart of HollyFrontier Specialty Products' transportation system enables accuracy, speed, current information, and integration with your system.



## **RAIL TRACKING**

HollyFrontier Specialty Products' railcar tracking, performance measurement and management system provides daily reports on car location and forecasted arrival dates to help alleviate the uncertainties inherent in railcar shipment. Daily reports contain standard railroad CLM reporting.

## **RAIL & TRUCK RATE SERVICE**

HollyFrontier Specialty Products' automated freight rating system ensures freight cost accuracy on invoices and reduces the chance for error.

## **ELECTRONIC DATA INTERCHANGE (EDI)**

HollyFrontier Specialty Products sends all bill of landing information to the railroads via EDI, ensuring accuracy and timeliness in processing.

## **TRANSPORTATION SERVICE**

HollyFrontier Specialty Products' integrated system may offer a transportation package that best meets your needs. If you decide you would like to have HollyFrontier Specialty Products coordinate your transportation requirements, there may be an attractive economy of scale because we combine our inbound and outbound requirements for greater negotiating power. All this translates into added reliability and convenience, as well as savings for you.

## **HOLLYFRONTIER SPECIALTY PRODUCTS VALUES**

### **HEALTH & SAFETY:**

**We put health and safety first.**

We conduct our business with high regard for the health and safety of our employees, contractors, and neighboring communities. We continuously strive to raise the bar, guided by our stringent health and safety performance standards.

### **ENVIRONMENTAL STEWARDSHIP:**

**We care about the environment.**

We are committed to minimizing environmental impacts by reducing wastes, emissions, and other releases. We understand that it is a privilege to conduct our business in the communities where we operate.

### **CORPORATE CITIZENSHIP:**

**We obey the law.**

We are committed to promoting sustainable social and economic benefits wherever we operate.

### **HONESTY & RESPECT:**

**We tell the truth and respect others.**

We uphold high standards of business ethics and integrity, enforce strict principles of corporate governance, and support transparency in all our operations. One of our greatest assets is our reputation for acting ethically in the interest of employees, shareholders, customers, business partners, and the communities where we operate.

### **CONTINUOUS IMPROVEMENT:**

**We must continually improve.**

Innovation and high performance are our way of life. We believe a positive attitude toward constructive change is essential.

# HOLLYFRONTIER SPECIALTY PRODUCTS' FINGERTIP OIL FINDER MATCHING SYSTEM

## HollyFrontier Specialty Products' FingerTip Oil Finder Matching System

- 1 Check the list for your industry application
- 2 Find the recommended HollyFrontier Specialty Products oils
- 3 Consult the detailed specification sheet for that oil in the brochure

	Sunpar™			Sundex™			FCA Defoamer		DCA			Suncoat™		Sun Roll	Heat Transfer	Sun AG	Sun Spray
VISCOSITY* >	L	M	H	L	M	H	L	M	L	M	H	L	M	L	M	L/M	L/M
Adhesives																	
Aluminum Forming																	
Aluminum Roll Oil																	
Automotive Wax Cleaners																	
Carpet Backing																	
Carpet Re-Bonding																	
Caulking/Sealing Compounds																	
Cheater Wax																	
Cleaning Compounds																	
Coatings, Paints & Varnishes																	
Concrete Release Agent																	
Cordage Oils																	
Crop Spray																	
Defoamers																	
Diluent Oils																	
Dust Control																	
Electric Discharge Machining																	
Fiberglass Insulation																	
Floor Oils																	
Foundry Area Cleaner																	
Furniture Polish																	
Gas Absorption Oil																	
Glass-Mold Oils																	
Hand Cleaners																	
Heat-Set Inks																	
Heat Exchanger																	
Herbicide Carrier Oils																	
Ink (Varnish)																	
Ink (Vis Adjustment)																	
Inks & Carbon Paper																	
Leather Oils																	
Mop Treatment Compounds																	
Paper Treating Compounds																	
Parts Cleaner																	
Pest Control																	
Plywood Filter																	
Polishers																	
PVC Plasticsols																	
Refractories																	
Resin Diluent																	
Resin Plasticizers/Extenders																	
Rubber Compounding																	
Rubber Extending																	
Rust Preventatives																	
Slushing																	
Spindle Oil																	
Sweeping Compounds																	
Wood Preservatives																	
Wood Treating Compounds																	
Wool Oils																	

\*L = Low Viscosity M = Medium Viscosity H = High Viscosity



