

# SHELL ONDINA X OILS IN COSMETIC AND PERSONAL CARE FORMULATIONS



Shell Process Oils

UNLOCKING COMPETITIVE ADVANTAGE

## SHELL WHITE OILS USED TO COME FROM CRUDE OIL, NOT ANYMORE.

WHAT POSSIBILITIES CAN GAS-TO-LIQUIDS (GTL) TECHNOLOGY OPEN UP FOR YOUR FORMULATIONS?

### UNDERSTANDING YOUR NEEDS

The worldwide market for cosmetics and toiletry products is projected to grow significantly owing to rising consumer incomes and improving lifestyles. In addition, consumers have become much more sophisticated buyers and expect higher quality products, such as differentiated products for different skin types and with enhanced package aesthetics and improved product functionality. To be successful, cosmetic producers must meet these demands and offer clear differentiation from their competitors. In addition, there is a clear trend for consumers seeking purer products and those that are naturally based or nature-inspired.

White oils are commonly used ingredients in most types of personal care products and many cosmetics formulations, from petroleum jelly to hair and skin care products. They have been shown to be highly effective for adding moisturising and other characteristics when used in cosmetic formulations.

Shell's next generation medicinal white oils, Shell Ondina X, are no longer based on conventional mineral oils derived from crude oils, but on GTL technology. Shell Ondina X oils can help you to unlock competitive advantage in the formulations in which you use them because they offer

- **high purity**
- **high performance.**

### Performance at a glance

<b>High purity</b>	Made from natural gas	Meet purity requirements	Very low unsaturates level
<b>High performance</b>	Outstanding thermal stability	Outstanding light stability	Good binding characteristics



### MADE FROM NATURAL GAS

Shell's GTL technology enables process oils to be derived from natural gas rather than crude oil, and thanks to their innovative technology, Shell Ondina X 415, 420 and 430 are becoming the products of choice for cosmetic formulations. **INCI name: C18-50 Isoparaffin.**

### MEET PURITY REQUIREMENTS

Shell Ondina X oils are colourless, almost odourless and meet the stringent medicinal white oil purity requirements of the major international pharmacopoeias, including the European Pharmacopoeia, the United States Pharmacopoeia, the Chinese Pharmacopoeia and the Indian Pharmacopoeia.

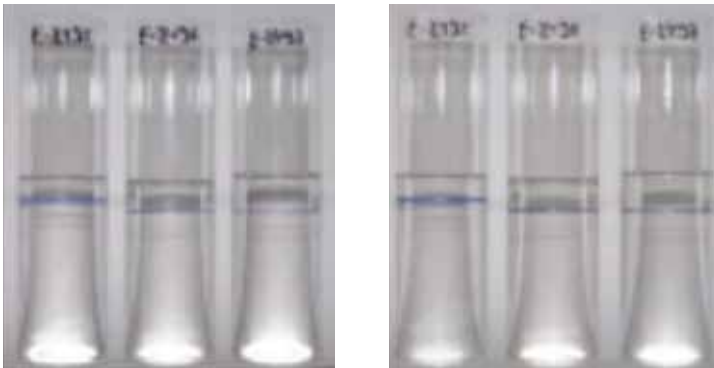
### VERY LOW UNSATURATES LEVEL

Shell Ondina X oils have a mainly isoparaffinic hydrocarbon structure and are carefully manufactured via Fischer-Tropsch and hydrotreatment processes from natural gas. Thanks to this manufacturing route, Shell Ondina X oils have very low polycyclic aromatic hydrocarbon (PAH) levels, which make them particularly suitable for cosmetic and personal care product formulations.

# SHELL ONDINA X OILS OFFER YOU EXCELLENT MEDICINAL WHITE OIL PURITY LEVELS AND EXCELLENT PERFORMANCE, BOTH DURING THE PRODUCTION PROCESS AND AFTERWARDS TO HELP YOU ACHIEVE HIGH QUALITY STANDARDS.

## OUTSTANDING THERMAL STABILITY

Owing to their stable hydrocarbon structure and low unsaturates content, Shell Ondina X oils are more resistant to exposure to high temperatures than products with less stable hydrocarbons and higher unsaturates level.



0 hours  
20 hours  
Thermal stability test (Henkel test: 20 hours at 160°C). Source: Shell

## OUTSTANDING LIGHT STABILITY

Owing to their low unsaturates level and, therefore, high light stability (high resistance to photo-oxidation), Shell Ondina X oils resist discoloration, which can be extremely beneficial in cosmetic applications.

Light stability test	Saybolt colour after ...hours							
	0 (start)	24	48	72	96	168	216	264
Shell Ondina X	+30	+30	+30	+30	+30	+30	+30	+30

Light stability test for Shell Ondina X 415, 420 and 430. Source: Shell

## FIND OUT MORE: TALK TO SHELL PROCESS OILS

If you are interested in unlocking valuable competitive advantage, talk to Shell about the benefits that Shell Ondina X could have for your business.



[www.shell.com/processoils](http://www.shell.com/processoils)

## GOOD BINDING CHARACTERISTICS

Because of their isoparaffinic structure, Shell Ondina X oils bind well with microwaxes and other waxy components. As shown below, their molecular structure is more linear than conventional Group I medicinal white oils.



Shell Ondina X representation



Conventional Group I medicinal white oil product representation

