



# Shell Ondina Oil 941

## Medicinal White Oil

Shell Ondina Oils are highly refined, non-stabilised, aromatic-free paraffinic or naphthenic white mineral oils complying with the stringent pharmacopoeia purity requirements. Ondina oils can be used in pharmaceutical, food packaging, cosmetic and other applications, where this high purity is required by legislation or important for the quality of the finished product. Shell Ondina Oil 941 is suitable for food packaging and other applications coming into contact with food meeting the requirements of Regulation (EU) No. 10/2011.

### DESIGNED TO MEET CHALLENGES

#### Specifications, Approvals & Recommendations

This product meets the requirements of:

- FDA 21 CFR 178.3620(a), White Mineral Oil
- European Pharmacopoeia, White Mineral Oil
- US Pharmacopoeia/National Formulary, White Mineral Oil
- FDA 21 CFR 172.878, White Mineral Oil

This product is registered to the requirements of:

- NSF H1, HX-1, 3H

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk

#### Typical Physical Characteristics

Properties	Method	Shell Ondina Oil 941
Colour (Saybolt)	ASTM D156	+30
Density @15°C kg/m <sup>3</sup>	ISO 12185	871
Refractive Index @20°C	ASTM D1218	1.477
Flashpoint (COC) °C	ISO 2592	275
Pour Point °C	ISO 3016	-18
Dynamic Viscosity @20°C mPa*s	ISO 3104	316
Kinematic Viscosity @20°C mm <sup>2</sup> /s	ISO 3104	360
Kinematic Viscosity @40°C mm <sup>2</sup> /s	ISO 3104	109
Kinematic Viscosity @100°C mm <sup>2</sup> /s	ISO 3104	12.3
Sulphur (X-Ray) % m/m	ISO 14596	<0.001
Carbon Type Distribution : C/A (S-corr.) %	DIN 51378/ASTM D2140 mod.	0
Carbon Type Distribution : C/N (S-corr.) %	DIN 51378/ASTM D2140 mod.	30
Carbon Type Distribution : C/P (S-corr.) %	DIN 51378/ASTM D2140 mod.	70
Refractive Intercept (RI)	DIN 51378	1.0434
Viscosity Gravity Constant (VGC)	DIN 51378	0.794
Aniline Point °C	ISO 2977	126
Evaporation Loss (22 hrs) @107°C % m/m maximum	ASTM D972	0.1

Properties			Method	Shell Ondina Oil 941
Noack Volatility (1 hr)	@250°C	% m/m	ASTM D5800	1.6
Molecular Weight		g/mol	ASTM D2502	530
Carbon Number at 5% Distill. Point			ASTM D2887 mod	C29

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.

## Health, Safety & Environment

- **Health and Safety**

Shell Ondina Oil 941 is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from <http://www.epc.shell.com/>

- **Protect the Environment**

Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

## Additional Information

- **Advice**

Advice on applications not covered here may be obtained from your Shell representative.