



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

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
Specifications - European Pharmacopoeia 4		-
Specifications - US Pharmacopoeia 25 / NF 20		Mineral Oil
Specifications - EU Directive 2002/72/EC		Pass
Colour (Saybolt)	ASTM D156	+30
Density @15°C kg/m ³	ISO 12185	868
Refractive Index @20°C	ASTM D1218	1.476
Flashpoint (COC) °C	ISO 2592	260
Pour Point °C	ISO 3016	-9
Dynamic Viscosity @20°C mPa*s	ISO 3104	268
Kinematic Viscosity @20°C mm ² /s	ISO 3104	310
Kinematic Viscosity @40°C mm ² /s	ISO 3104	94
Kinematic Viscosity @100°C mm ² /s	ISO 3104	11
Sulphur (X-Ray) % m/m	ISO 14596	<0.001
Carbon Type Distribution : C/A (S-corr.) %	DIN 51378/ASTM D2140 mod.	-
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	0.795
Aniline Point °C	ISO 2977	123
Evaporation Loss (22 hrs) @107°C % m/m	ASTM D972	<0.1
Noack Volatility (1 hr) @250°C % m/m	ASTM D5800	2.9
Molecular Weight g/mol	ASTM D2502	530
Carbon Number at 5% Distill. Point	ASTM D2887 mod	C28
Purity Requirements for Medicinal White Oils acc. Europ.Pharm.		Pass

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.