Technical Data Sheet

Shell **Ondina X *432***

Medicinal White Oil

Shell Ondina X 432 is a highly refined, non-stabilised, aromatic-free mainly iso-paraffinic white mineral oil complying with the stringent pharmacopoeia purity requirements.

DESIGNED TO MEET CHALLENGES

Main Applications

This type of oil can be used in pharmaceutical, food packaging, cosmetic and other applications like TPE/EPDM, where this high purity is required by legislation or important for the quality of the finished product.

Specifications, Approvals & Recommendations

This product meets the requirements of:

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

Shell Ondina X 432 suitable for food packaging and other applications coming into contact with food meeting the requirements of EU Regulation 10/2011 (former directive: 2002/72/EC also known as “plastic directive”).

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

Typical Physical Characteristics

Properties			Method	Shell Ondina X 432
Colour (Saybolt)			ASTM D156	+30
Density	@ 15°C	kg/m³	ISO 12185	844
Refractive Index	@ 20°C		ASTM D1218	1.467
Flashpoint COC		°C	ISO 2592	270
Pour Point		°C	ISO 3016	-24
Kinematic Viscosity	@ 20°C	mm²/s	ISO 3104	165
Kinematic Viscosity	@ 40°C	mm²/s	ISO 3104	59
Kinematic Viscosity	@ 100°C	mm²/s	ISO 3104	9.0
Sulphur (X-Ray)		%m/m maximum	ISO 14596	0.001
Refractive Intercept (RI)			DIN 51378	1.0464
Viscosity Gravity Constant (VGC)			DIN 51378	0.770
Noack Volatility	1h/250°C	%m/m	ASTM D5800	1.6
Molecular Weight		g/mol	ASTM D2502	525
Carbon Number	@ 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 X 432 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 https://www.epc.shell.com

- **Protect the Environment**

  Take used oil to an authorised collection point.

Additional Information

- **Advice**

  Advice on applications not covered here may be obtained from your Shell representative or technical help desks.