

Shell Ondina Oils (ISO)

Medicinal white oils



Shell Ondina Oils are highly refined, non-additive, aromatic-free paraffinic white mineral oils complying with the stringent pharmacopoeia purity requirements. Ondina oils can be used in pharmaceutical, food packaging, food machinery lubrication, cosmetic and other applications, where this high purity is required by legislation or important for the quality of the finished product.

Applications

- **Cosmetic and Pharmaceuticals**
Components in cosmetic cremes, lotions, oils, toiletries etc.
- **Food packaging**
Extender oil in polystyrene and other plastics, price labels.
- **Hygiene articles**
Extender oil in thermoplastic TPE (e.g. SIS, SEPS), TPV and other elastomers.
- **Technical applications and car components**
Carrier fluid and extender oil for a variety of high quality applications, where colour and stability is important. Suitable when PVC is replaced by TPE elastomers.
- **Toys and similar articles**
Extender oil in TPE elastomers (e.g. SBS, SEBS)
- **Machinery lubrication**
Lubrication of moving parts/cylinders in compressors using in the product of plastic intended for use in food packaging.

The use of medicinal white oils in direct and indirect food applications, e.g. as food additives or for food packaging, is regulated by international specifications supplemented by local legislation. These requirements may deviate from country to country and must be taken into account by the user.

Performance Features and Benefits

- **High purity**
Refined to the highest degree of purity removing all aromatics; consist only of chemically inert molecules
- **Optimal quality control**
Segregated product lines during production, storage, blending and filling; extensive laboratory control testing
- **Excellent stability**
Exceeding oxidation and light stability of standard process oils

Specification and Approvals

- European Pharmacopoeia 3rd Edition
- Japanese Pharmacopoeia XIII
- US Pharmacopoeia 29th and 30th Editions
- US FDA §172.878 ("White Mineral Oil") for direct food contact
- US FDA §178.3620(a) for indirect food contact
- FDA specifications, where above specified oils are positively listed e.g.
§173.340,
§175.105, §175.210, §175.230, §175.300,
§176.170, §176.180, §176.200, §176.210,
§177.1200, §177.2260, §177.2600, §177.2800,
§178.3120, §178.3570, §178.3740, §178.3910,
§573.680.
- UK 'The Mineral Hydrocarbon in Food Regulations 1966'
- European Directive 2002/72/EC for plastic materials coming into contact with foodstuffs

Advice

Advice on applications not covered in this leaflet may be obtained from your Shell representative.

Health and Safety

Guidance on Health and Safety are available on the appropriate Material Safety Data Sheet which can be obtained from your Shell representative.

Protect the environment

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

Typical Characteristics of Ondina 68 and 100

Property	Units	Method	Ondina 68	Ondina 100
ISO Viscosity grade		ISO 3448	68	100
Specifications European Pharmacopoeia US Pharmacopoeia			Liquid Paraffin Mineral Oil	Liquid Paraffin Mineral Oil
Colour (Saybolt)		ASTM D 156	+30	+30
Density at 15°C	Kg/m ³	ISO 12185	864	874
Flashpoint COC	°C	ISO 2592	240	260
Pour Point	°C	ISO 3016	-9	-9
Kinematic Viscosity at 20°C at 40°C at 100°C	mm ² /s mm ² /s mm ² /s	ISO 3104	 68 9.7	295 94 11
Molecular weight	g/mol	ASTM D 2502	>479	518
Hydrocarbon Content With carbon number less than 25	% m/m	ASTM D 2887mod	<5	<5

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