Overview and application areas of

# PHARMACEUTICAL OILS

Oils have been used by the pharmaceutical industry for decades. From parenteral nutrition to soft gel formulations, oils play a key role in a wide range of pharmaceutical products.

## PARENTERAL NUTRITION

Olive- and Soybean oil are used as API for the manufacture of nutritional lipid emulsions products in parenteral nutrition. They provide a source of calories and essential fatty acids.

The therapeutic roles of lipid emulsion have expanded far beyond the nutrition. Many lipophilic drug solutions are formulated as lipid emulsions.

#### INJECTABLE EXCIPIENT

### ORAL EXCIPIENT

Most of the API's in the development pipeline today are poorly soluble. Lipid excipients can be used for the formulation.

In topical formulation, oils are used to solubilize poorly soluble API's, improve skin penetration, texture and provide emollient properties.

#### TOPICAL EXCIPIENT

### FUNCTIONAL EXCIPIENT

Besides the use of oils for their nutritional properties or as a vehicle, oils are also used in formulation for their functionality. Specific modifications like hydrogenation are used to increase the melting point and the stability of the oil.

# **PHARMA** E X C I P I E N T S