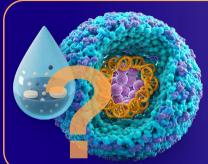
Lipids for Small Molecules

Versatile lipid carriers for inhalation, nasal, and injectable therapeutics



Why lipids matter in drug delivery

Capable of encapsulating: 01 Small molecules 02 Peptides

Lipids can dissolve lipophilic drugs, allowing for higher drug loading and improved absorption.

Lipids encapsulate APIs including peptides and proteins protecting them from degradation.

Common challenges in small molecule delivery

Irritation/

carriers

inflammation

with current



Poor



Limited formulation flexibility

Type of applications

Inhalation delivery

COPD and Asthma Cystic fibrosis Lung cancer

Benefit: enhanced lung retention

Nasal delivery CNS delivery via

olfactory route (e.g., Alzheimer's, Parkinson's) Rapid systemic absorption

Benefit: Minimally invasive, fast-acting

Injectable delivery

Cancer drug delivery Pain management

 Benefit: controlled and sustained release

Our lipids



Biocompatibility:

Excellent biocompatibility and safety profile

Stability:

High phase transition temperature (~55°C), providing thermal and oxidative stability to formulations

Provides structural integrity:

Acts as a shell forming agent to stabilise droplets during spray drying



Stable release:

Forms stable bilayers that can be used to regulate drug release

Biocompatibility:

Major component of lung surfactant; excellent safety profile, especially for pulmonary delivery

Stability:

High phase transition temperature (~41°C), providing thermal and oxidative stability to formulations



Excellent solubiliser:

Enhances formulation of lipophilic small molecules

Biodegradable and non-toxic:

Well tolerated

Enhanced absorption:

Facilitates lymphatic transport and bypasses first-pass metabolism when used in nasal routes



Permeation enhancer:

Assists across both intracellular and paracellular pathways

Excellent solubiliser:

Enhances formulation of hydrophobic molecules in aqueous environments

Long term stability:

Forms exceptionally stable micelles that enhance API stability

DEPC, DPPG, Cholesterol, DMPG, DSPE-2000 mPEG, DMPC and more. Scan the QR code to download our full GMP lipid offering flyer.



Ready to elevate your small molecule drug delivery system with Avanti™ GMP structured lipids?

Contact us for a consultation or request for samples

CRODA | Pharma

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