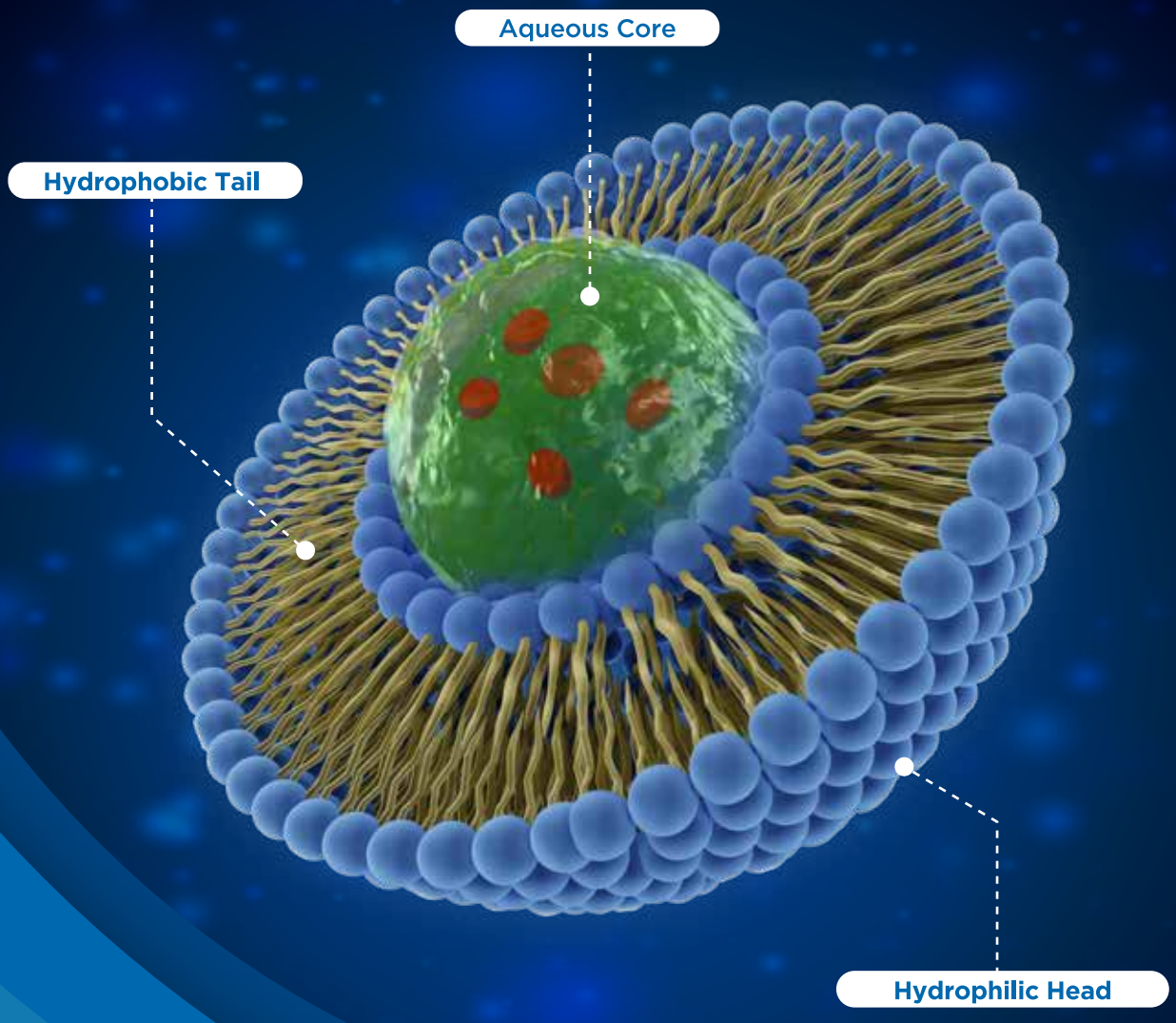
LIPOSOMAL TECHNOLOGY



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60 GLORIOUS YEARS

**A VESSEL OF HOPE, A CARRIER OF CURE,
A LIPID EMBRACE, GENTLE AND PURE**

Liposome Characterization

< -30 mV	<1	100-200 nm
Zeta Potential	Polydispersity Index	Particle size

Key Characterisitcs Of Liposomal Minerals

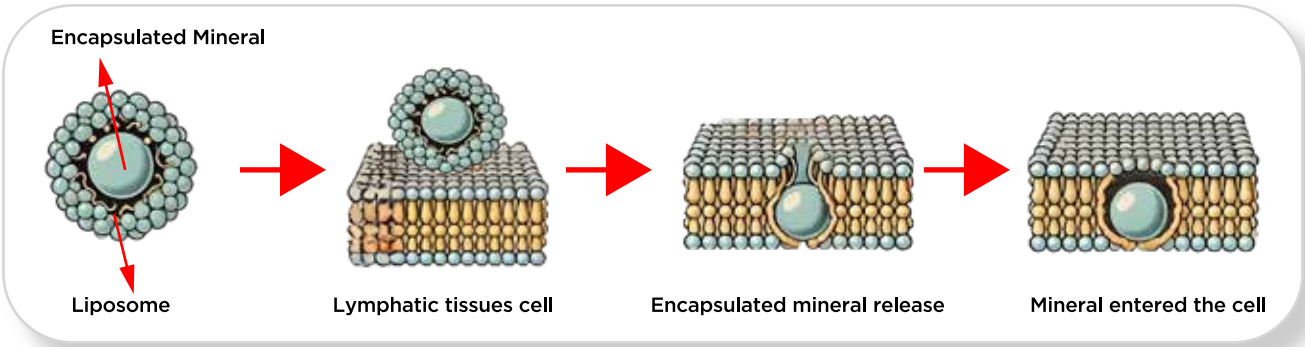
Encapsulation Efficiency **NLT 70%**	Zeta Potential **< -30 mV**
< 1 Polydispersity Index	**100–220 nm** Particle Size
Drug Loading Capacity **0.71 mg** per mg	Leakage Rate **NMT 3%** Over the shelf life

- **Scanning Electron Microscopy (SEM)**
- **Differential Scanning Calorimetry (DSC)**
- **Energy Dispersive X-ray Spectroscopy (EDAX)**
- **X-ray Photoelectron Spectroscopy (XPS)**
- **Fourier Transform Infrared Spectroscopy (FTIR)**

were performed to analyze our

Liposomal Formulation

Process of Liposomal Mineral Absorption



Mineral & Vitamin Absorption and Dosage:
Liposomal Vs. Non-Liposomal

Minerals & Vitamins	Type	Absorption Rate	Therapeutic Dose
Iron	Liposomal	50%	30 mg
	Non-liposomal	10%	90 mg
Calcium	Liposomal	50%	500 mg
	Non-liposomal	16%	1000 mg
Magnesium	Liposomal	60%	200 mg
	Non-liposomal	20%	350 mg
Zinc	Liposomal	80%	15 mg
	Non-liposomal	20%	44 mg
Tocopherol	Liposomal	92%	200 mg
	Non-liposomal	25%	600 mg
Hyaluronic Acid	Liposomal	20%	550 mg
	Non-liposomal	0.50%	1 g
Alpha Lipoic Acid	Liposomal	60%	1200 mg
	Non-liposomal	20%	1800 mg
Vitamin C	Liposomal	85%	80 mg
	Non-liposomal	30%	150 mg
Vitamin D3	Liposomal	98%	62.5 mcg
	Non-liposomal	~50%	1500 mg
Vitamin K2	Liposomal	95%	90 mcg (MK7); 300 mcg (MK4)
	Non-liposomal	30%	100 mcg (MK7); 500 mcg (MK4)
Curcumin	Liposomal	30%	1200 mg
	Non-liposomal	1%	15 g
Glutathione	Liposomal	95%	500 mg
	Non-liposomal	40%	1000 mg
L-Methylfolate	Liposomal	90%	500 mcg
	Non-liposomal	25%	15 mg
NADH	Liposomal	~10%	25 mg
	Non-liposomal	1.50%	50 mg
Magnesium Pidolate	Liposomal	90%	NA
	Non-liposomal	35%	550 mg

Liposome Characterization

Available

- Morphology of the liposome.
- Surface characteristics of the liposomes, as applicable.
- Net charge, typically measured as zeta potential of the liposomes.
- Particle size.
- Leakage rate of drug from the liposomes throughout shelf life.
- Parameters of the contained drug (drug encapsulation efficiency, liposome drug loading).
- Liposome integrity changes (e.g., drug release, drug encapsulation efficiency, liposome drug loading, size) in response to changes in factors such as salt concentration, pH, temperature, or addition of other excipients, as applicable.
- Liposome structure supported by spectroscopic or other analytical method(s).

Different Forms Of Liposomal Mineral


Normal / Regular


Soluble


DC Granules & Pellets


Effervescence Granules


Sublingual Tablet


Suspension

Explore our Wide Range of APIS

Ferric Citrate	Calcium Citrate	Zinc Acetate	L- Methylfolate
Iron III Hydroxide Polymaltose	Calcium Acetate	Zinc Citrate	Boron Glycinate
Ferrous Ascorbate	Calcium Bisglycinate	Zinc Ascorbate	Sodium Butyrate Food
Ferrous Bisglycinate	Calcium D-Saccharate	Zinc Bisglycinate	Magnesium Lactate Gluconate
Ferric Ammonium Citrate	Calcium Gluconate	Magnesium Acetate	Ferrous Gluconate
Ferric Carboxymaltose	Calcium Lactate Gluconate	Magnesium Citrate	Ferric Derisomaltose
Ferrous Asparto Glycinate	Coral Calcium	Magnesium Ascorbate	Magnesium Bisglycinate

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