

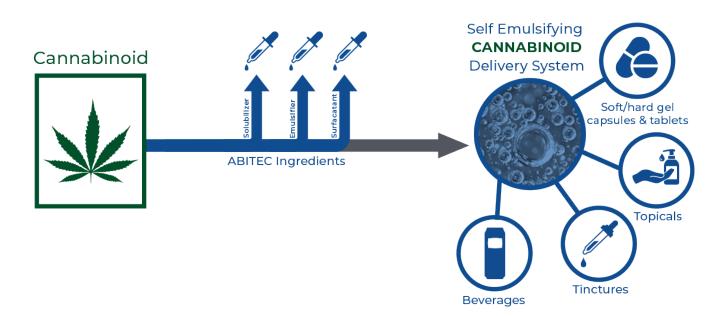
Cannabis Delivery

Utilizing Functional Lipid Ingredients



CBD Isolate Solubility & ABITEC Lipids

| ABITEC Lipid | Classification | Chemistry | Application | CBD Solubility (%w/w) Visual | CBD Solubility (%w/w) Determined |
|----------------|----------------|--------------------|---|------------------------------------|--|
| CAPTEX® 8000 | Solubilizer | МСТ | Solubilization | 40 | 42.63 |
| CAPTEX 355 | Solubilizer | мст | Solubilization | 30 | |
| CAPTEX 1000 | Solubilizer | МСТ | Solubilization | 30 | |
| CAPTEX GTO | Solubilizer | LCT | Solubilization Lymphatic transport enhancer | 15 | |
| CAPTEX MCM C8 | Emulsifier | Mono-, diglyceride | Emulsification | 40 | 42.50 |
| CAPMUL® GMO-50 | Emulsifier | Mono-, diglyceride | Emulsification Lymphatic transport Transdermal penetration enhancer | 45 | 45.19 |
| CAPMUL 471 | Emulsifier | Mono-, diglyceride | Emulsification | 30 | |
| CAPMUL 808G | Solubilizer | МСТ | Solubilization | 40 | |
| CAPROL® MPGO | Emulsifier | Polyglycerol ester | Emulsification Lymphatic transport enhancer Liquid taste masking | 20 | |
| CAPMUL PG-12 | Emulsifier | Mono-, diglyceride | Emulsification Transdermal Penetration enhancer | 10 | |
| CAPROL PGE 860 | Emulsifier | Polyglycerol ester | Emulsification Lymphatic transport enhancer Liquid taste masking | 10 | |



Typical lipid-based delivery systems consist of a solubilizer, emulsifier and a surfactant to aid in optimal formulation results. ABITEC supplies a portfolio of ingredients to optimize these formulations.

ABITEC Self Emulsifying Lipid Delivery Systems for Beverages & Tinctures

Benefits you can expect::

- ✓Clean Label
- ✓ Low Energy
- ✓ Minimal Taste

Bonus: ABITEC ingredients support flavors & flavor masking

Clear Beverage Suggested Formulations:

| Ingredient | % |
|------------------------------------|------|
| Cannabis of Your Choice | 33.5 |
| CAPTEX® 8000 | 16.5 |
| CAPMUL® GMO-50 OR CAPMUL MCM C8 | 16.5 |
| Quillaja, liquid* | 33.5 |

Opaque Liquids Suggested Formulations:

| Ingredient | % | Ingredient | % |
|---|------|-----------------------------------|----|
| Cannabis of Your Choice | 33.5 | Cannabis of Your Choice | 40 |
| CAPTEX® 8000 | 16.5 | CAPTEX® 8000 | 20 |
| CAPROL® PGE-860 OR CAPMUL® GMO-50 | 16.5 | CAPMUL® MCM C8 | 20 |
| Lecithin, liquid* or Quillaja, liquid* | 33.5 | Lecithin, liquid* or Tween 80* | 20 |

ABITEC Self-Emulsifying Lipid Delivery Systems for Gummies & Softgels

Benefits you can expect::

- √Clean Label
- ✓ Low Energy
- ✓ Maximize Concentration

Suggested formulations

| Ingredient | % |
|--|------|
| Cannabis of Your Choice | 33.5 |
| CAPTEX® 8000 | 16.5 |
| CAPMUL® GMO-50 OR CAPMUL MCM C8 OR CAPROL® PGE-860 | 16.5 |
| Quillaja, liquid* or Lecithin, liquid* | 33.5 |

| Ingredient | % |
|----------------------------|-------|
| Cannabis of Your Choice | 20 |
| CAPTEX® 8000 | 40 |
| CAPMUL® MCM C8 | 16.75 |
| Vitamin E TPGS* | 23.25 |

| Ingredient | % |
|----------------------------|----|
| Cannabis of Your Choice | 40 |
| CAPTEX® 8000 | 20 |
| CAPMUL® MCM C8 | 20 |
| Tween 80* | 20 |





ABITEC Corporation is part of ABF Ingredients and is headquartered in Columbus, Ohio, US with two manufacturing sites in the Midwest. ABITEC specializes in the manufacturing and distribution of specialty lipid ingredients for use in the pharmaceutical, nutraceutical, and specialty chemical markets.

Larodan, located in the Karolinska Institute in Stockholm Sweden, develops, manufactures and markets a comprehensive range of high purity lipids for the international market. Serving numerous research and pharmaceutical markets, Larodan's aim is to the be an optimal partner for lipid-related research and product development needs.

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