

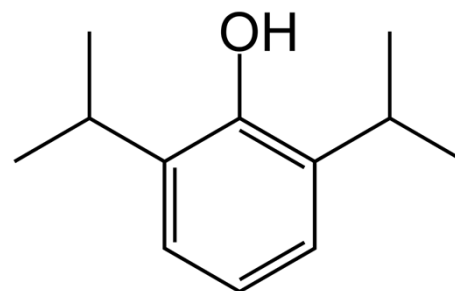


Welcome to the
CAPTISOL[®] EXPERIENCE
“Laboratory” Demonstration

Propofol Emulsion: The Problem Statement

DIPRIVAN[®] Injectable Emulsion

- AstraZeneca branded propofol for anesthesia/sedation
- Generic Market ~\$500 MM US
- Issues:
 - Oil-based: **Supports microbial growth**
 - Preservatives(s)/egg lecithin: **Common allergens**
 - Sterile Manufacturing of Emulsions: **Increased costs, quality issues, batch failures**

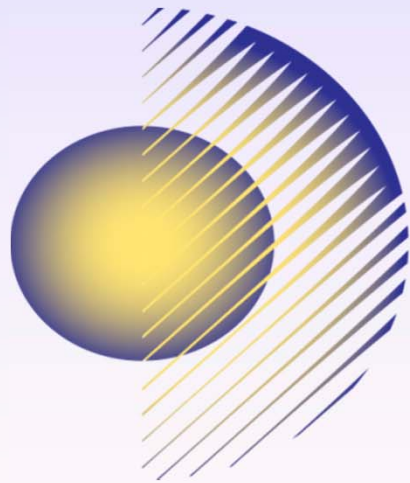


LAB STATION #1

- Start Stirrer
 - Dial reading 7-9 and back-off, slightly
- Create/Adjust Vortex (i.e. “Tornado in a Jar”)
- Add Propofol Oil to Captisol[®]-containing Vortex
- Stand-Back & Observe (patience)

LAB STATION #2: Control

- Start Stirrer
 - Dial reading 7-9 and back off, slightly
- Create/Adjust Vortex
- Add Propofol Oil to Vortex
- Observe

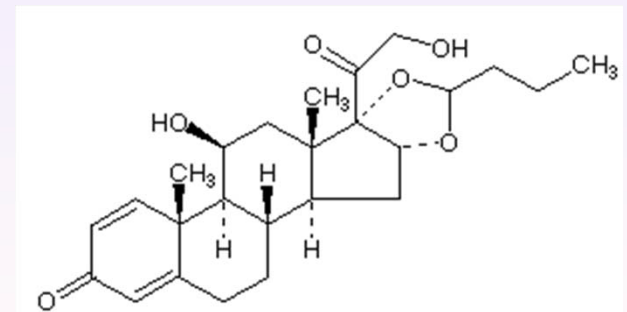


LIGAND[®]

Budesonide Respules: The Problem Statement

Pulmicort® Respules

- Marketed by AstraZeneca for asthma
- Market reached ~ \$1 B in US
- **Issues:**
 - Suspension
 - Dose variation
 - Onerous particle size/control
 - Expensive manufacturing challenges
 - **Delivery takes 10-20 minutes!**



LAB STATION #3: Pulmicort[®] Respule

- Swirl Plastic Ampule 30 seconds
- Break-off Top
- Squeeze Slowly into Glass Vial
- Observe

Captisol-enabled® Budesonide Respules

LAB STATION #4: Captisol-enabled® Budesonide

- Swirl Plastic Ampule 30 seconds
- Break-off Top
- Squeeze Slowly into Glass Vial with Captisol®
- Shake 1 minute
- Observe and compare



LIGAND[®]

Captisol-enabled® Budesonide Respules



Captisol-enabled® Budesonide Inhalation Solution

- Solution vs. Suspension
 - More reproducible dosing
- Made by conventional manufacturing methods
- Creates dose sparing opportunities
- Wider nebulizer compatibility
- **Faster Delivery:** ~ 1 Minute vs. 10-20 Minutes

Captisol-enabled® Propofol



Captisol-enabled® Propofol

- Fat-free, clear, dilutable solution
- Allergen-Free: no sulfites/no egg lecithin
- Made via conventional Manufacturing
- Superior Stability



***Thank you for joining the
CAPTISOL® EXPERIENCE***