

4282-053

Key Words: Multi Dosage, Trimethoprim and Sulfamethoxazole, Direct Compression
JRS Products: PROSOLV® SMCC HD 90, PRUV®

Cotrimazole Direct Compression

Page 1

Summary

Cotrimoxazole is a combination of the two APIs, Trimethoprim and Sulfamethoxazole. It is an antibiotic used for the treatment of urinary tract infections, as well as lung and ear infections.

Combinations of Trimethoprim/Sulfamethoxazole at a ratio of 1:5 are very common. The following formulation gives a combination of 80 mg Trimethoprim and 400 mg Sulfamethoxazole.

Formulation

	Active content [mg]	mg/tablet	Contribution [%]
Trimethoprim	80.0	80.0	13.34
Sulfamethoxazole	400.0	400.0	66.66
PROSOLV® SMCC HD 90 (Silicified Microcrystalline Cellulose)		111.0	18.50
Silicone Dioxide (Aerosil® 200)		6.0	1.0
PRUV® (Sodium Stearyl Fumarate)		3.0	0.5
Total		600.0	100.0

Procedure

Blending:

The APIs, **PROSOLV® SMCC HD 90** and Silicone Dioxide were mixed for 15 minutes. Afterwards, **PRUV®** was added to the blend and mixed for an additional 3 minutes. The powder mixture was ready for direct compression.

Equipment:

Tablet Press:	Kilian Pressima, 13 mm punch
Turbula Mixer:	Type T2A
Hardness Tester:	Schleuniger Tablet Tester 6D
Disintegration Tester:	Pharmatest PTZ
Dissolution Tester:	Pharmatest PTW 2
Spectrophotometer:	Cecil CE 1021

Tablet Characteristics

Compaction force:	18 kN
Tablet diameter:	13 mm
Tablet weight:	600 mg
Crushing strength:	100 N
Friability:	0.9 %
Disintegration time:	75 s

Disclaimer: The information provided is based on thorough research and is believed to be completely reliable. Application suggestions are given to assist our customers, but are for guidance only. Circumstances in which our material is used vary and are beyond our control. Therefore, we cannot assume any responsibility for risks or liabilities, which may result from the use of this technical advice.