

4282-039

Multivitamin Effervescent Tablet Direct Compression

Key Words: Vitamins, Direct Compression
Effervescent Tablet
JRS Products: EMDEX®, PRUV®

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Summary

Vitamins are nutrients required in tiny amounts for essential metabolic function in the body. They are biomolecules that act both as catalysts and substrates in chemical reactions. Vitamins also work as coenzymes to carry chemical groups between enzymes and are essential for the normal growth and

development of a multicellular organism. Because humans do not manufacture most vitamins in their bodies (with the exception of vitamin D), they must consume them regularly to avoid deficiency.

Formulation

	Active content [mg]	mg/tablet	Contribution [%]
Multivitamin Mix*	160.9	160.9	4.2
EMDEX® (Dextrates)		2,162.1	68.2
Citric Acid		444.2	11.6
Sodium Hydrogencarbonate		490.2	12.8
Aspartame		76.6	2.0
Flavor		34.5	0.9
PRUV® (Sodium Stearyl Fumarate)		11.5	0.3
Total		3,830.0	100.0

*100 % RDA

Each tablet contains the following vitamins: Vitamin C, Vitamin E, Vitamin B1 (Thiamin), Vitamin B2 (Riboflavin), Vitamin B6 (Pyridoxine), Vitamin B12, Folic Acid, Pantothenic Acid, Niacin, Biotin, Vitamin A (Retinol).

Procedure

Blending:

All substances, except **PRUV®**, were blended for 18 minutes. **PRUV®** was added and the powder was mixed for another 3 minutes. The powder mixture was ready for direct compression.

Equipment:

Tablet Press:	Korsch EK 0 eccentric press
Turbula Mixer:	Type T2A
Hardness Tester:	Pharmatest PTB 311

Tablet Characteristics

Tablet Weight:	3,830 mg
Tablet Diameter:	25 mm
Compaction Force:	17 kN
Crushing Strength:	100 N

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.