

# **EXTRACTION OF *CHLOROPHYTUM BORIVILIANUM* BY USING PRESSURIZED SOLVENT AND SUPERCRITICAL CO<sub>2</sub>**

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## **Abstract**

*Chlorophytum borivilium* L. belonging to Liliaceae family is used in India as a natural aphrodisiac and revitalizer since ancient times. The present investigation highlights the extraction of saponins from *C. borivilium* L. tubers by solvent extraction using methanol and ethanol, pressurized solvent extraction using methanol and supercritical CO<sub>2</sub> extraction with methanol as an entrainer. The pressurized liquid and SC CO<sub>2</sub> extract yield was optimized by varying different process parameters like extraction time, temperature and pressure.

The total extract yield obtained with methanol was 6.429% (w/w) and 1.939% (w/w) with ethanol. The pressurized methanol at 125 bar and 70 °C yielded 13.12% (w/w) total extract. SC CO<sub>2</sub> extraction with methanol as an entrainer resulted in 0.878% (w/w) yield. The extracts were purified by silica gel column chromatography and analyzed by TLC and HPTLC to identify saponins in the extracts.