Malaysia is a multilingual country. Local speakers of Chinese Malay have transferred the features of other local languages into the language. Limited research had been conducted to investigate the phonological features of ChinMalay spoken by local Chinese speakers. Hence, this pioneer study was conducted to describe the salient phonological features and to determine the phonological variants of ChinMalay spoken by local Chinese speakers. 90 Chinese adults in age range 20 to 50 years old from Klang Valley were recruited and divided into three groups (Melayu-Melayu, Cina-Melayu and Cina-Cina) according to the types of education they have undergone in primary and secondary school level. Speech samples were obtained using the ChinMalay phonology test which consists of consonants and vowels in Standard Malay. The speech samples were transcribed phonetically using IPA symbols. Quantitative analysis was carried out based on the production accuracy of consonants and vowels. Statistical analysis using SPSS version 18.0 software revealed that there is no significant difference in the overall consonant and vowel production accuracy among the three study groups (p > 0.05, p > 0.001). However, descriptive analysis showed that there were salient phonological features of ChinMalay used by local Chinese speakers such as: 1) variable realization of phoneme /r/, 2) deletion of phoneme /l/ and /h/ at final word position, 3) aspiration of phoneme /p, t, k/, 4) aspiration of phoneme /l/, 5) insertion of phoneme // after /o/, 6) substitution of vowel /o/ with vowel // after phoneme /l/ and /h/, and 7) the occasionally used of standard Malay without using vowel schwa //. The multiple variants identified were found to be used inconsistently by the local speakers. The current study is the first large-scaled study in Malaysia and the result serves as useful local phonological norm. This helps Speech Language Pathologists in the evaluation and remediation of phonological disorders. It also acts as a baseline for scoring the pronunciation of local children.