

Evaluation of Zerust VCI-1 Vapor Capsule

Background: A VCI-1 Zerust Vapor Capsule was obtained from a trade show in Sweden by Bo Andersson. The sample was submitted to Cortec by Dario Dell'Orto for evaluation of its VCI content.

Note: It has been two years since Cortec tested this product, and it is believed that Zerust has changed their VCI ingredients.

Purpose: Analyze and verify the VCI content of the Zerust vapor capsule.

Methods: Gas Chromatography
NO₂/NO₃ Test

Materials: HP5890 A Gas Chromatograph, Hewlett Packard, Charlotte, NC
HP5970 B Mass Selective Detector, Hewlett Packard, Charlotte, NC
EM Quant NO₂ Test Strips, EM Industries Inc., Gibbstown, NJ
(charge/lot # 80280225, Jan 01)
EM Quant NO₃ Test Strips, EM Industries Inc., Gibbstown, NJ
(charge/lot # 80322977, Jul 01)

Procedure: The above tests were performed according to standard procedures for each.

Results: *Gas Chromatography:* According to the acquired spectra, the vapor capsule contains benzotriazole.

NO₂/NO₃ Test: The test strips reveal the presence of nitrites in the vapor capsule.

Conclusion: Based on the results from both of the above tests, the Zerust VCI-1 Vapor Capsule contains a salt of nitric acid (most likely dicyclohexylammonium nitrite) and benzotriazole.

