BROMOSORB™ ADSORPTION TECHNOLOGY FOR CAPTURING AND RECYCLING METHYL BROMIDE

Presented by Moez Nagji
Prepared by Moez Nagji and Vladan M. Veljovic

PRESENTATION SUMMARY

The paper describes the testing performed to demonstrate the application of the proprietary Bromosorb™ unit for recovering and recycling Methyl Bromide used for commodity/space fumigation in fumigation chambers and for soil fumigation in greenhouses. A series of tests was done with commercial scale pilot units on actual fumigated spaces. The removal of Methyl Bromide by the Bromosorb™ process was measured as well as the recovery for reuse of the adsorbed Methyl Bromide. The removal efficiencies varied between 96% and 99% of the adsorbed quantity. The adsorption and desorption chromatograms as well as independent testing of liquid Methyl Bromide clearly show no foreign substance formation or Methyl Bromide change during the process in any way. This means that Methyl Bromide recovered by the Bromosorb™ system could be acceptable for reuse in subsequent fumigations.

All the results and test experience strongly suggest that recovery of Methyl Bromide could be a technically feasible and an economically viable option. Halozone is currently offering commercial Bromosorb™ units with appropriate performance guarantees.

ABOUT THE AUTHORS

Moez Nagji is senior Vice President, Adsorption Technologies at Halozone Technologies Inc. Mississauga, ON. He has a M.S. and B.S. in Engineering from the Technical University at Dresden, Germany and has spent over 15 years working for Lurgi A.G., Union Carbide and UOP on the development and commercialization of adsorption technology.

Vladan M. Veljovic is Manager, Commercial Development at Halozone Technologies. He has a B.S. in Mechanical Engineering from the University of Belgrade, Yugoslavia and 7 years experience in the development of environmental applications with adsorption and cryogenic technology. Before joining Halozone he worked for Tehnogas, Engineering Division.