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FUMIGATION MADE EASY AND CLEAN WITH PHOSPHINE GENERATORS

P. P. ASHER

*United Phosphorus Ltd., 11, GIDC, Vapi 396195, Gujarat, India
E MAIL : asherpp@uniphos.com*

ABSTRACT

For many years Aluminum Phosphide with an active ingredient of 56 -60 % in the formulations, has been used as a fumigant for stored products and other applications. However, the rate of generation of phosphine is slow and uncontrolled. It is dependent on ambient conditions of temperature and moisture. Also, application of the product is very laborious. The most commonly used formulations have a strong smell of ammonia and a high initial concentration of phosphine. This is uncomfortable and makes the handling of fumigant difficult and dangerous. Furthermore, the distribution of phosphine in the fumigation structure is not uniform. Other phosphine producing formulations have similar limitations.

To overcome these deficiencies, a "QuickPHlo –R" formulation has been developed. The "QuickPHlo – R" formulation can only be used with a "QuickPHlo –R" generator. Phosphine generation is very rapid, easy, and safe to apply. This modern application equipment is operator friendly, and provides a safe formulation for fumigation. The generator has a built-in deactivation system and scrubber. The "QuickPHlo –R" formulation and the generating equipment, generate and distribute phosphine in less than two hours. The equipment is available in different sizes to generate from 56 g to 25,000 g of phosphine.

This paper discusses the merits of the new formulation and trial results.