SRI LANKA STANDARD 973: PART 2:1994

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## CODE OF PRACTICE FOR FUMIGATION OF AGRICULTURAL PRODUCE PART 2 : PHOSPHINE FUMIGATION

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## SRI LANKA STANDARD CODE OF PRACTICE FOR FUMIGATION OF AGRICULTURAL PRODUCE PART 2: PHOSPHINE FUMIGATION

## **FOREWORD**

This Standard was finalized by the Sectoral Committee on Cereals, Pulses and their products and was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 1994-03-31.

Fumigants are toxic and chemically reactive material. Therefore considerable care is required in handling and application of fumigants to assure the safety of personnel exposed to them. Thus, Part 1 of this standard covers general safety requirements in handling and application of fumigants. Other parts will cover the selection, safety and application techniques of commonly used fumigants.

Phosphides of aluminium and magnesium are the chemical precursors which evolve hydrogen phosphide gas or phosphine in the presence of the moisture in the atmosphere or in the produce. Once the volatile phosphine is given off the residue consists of hydroxides of aluminium or magnesium. As phosphine has a low inflammable temperature, it is necessary that the commercially available fumigant preparations of the precursors contain additives to delay emission of phosphine and to reduce explosion hazards. Phosphine is highly toxic to all forms of animal and human life and therefore persons supervising the fumigation must be professionally trained in the use of phosphine fumigants.

This standard should be used in conjunction with specific codes of instructions or regulations applicable to fumigation with phosphine gas.

In the preparation of this code, the valuable assistance derived from the following publications is gratefully acknowledged:

IS 7247: 1974 Indian Standard Code of practice for fumigation of agricultural produce
Part 3: Aluminium phosphide

MONRO, H.A.U, Manual of fumigation for insect control, 2nd ed., Published by FAO, Rome, 1969.