

#### GENERAL INSTRUCTIONS

Only experienced and properly instructed persons should use this product. While in the container the product is a liquid under pressure which turns to gas when released. The gas must be confined along with commodities being fumigated in a container or structure that is gastight or equipped with SIROFLO®. The minimum standard for a gastight enclosure is one in which an increased or decreased pressure will decay to half the initial value in not less than 5 minutes with the structure filled to its normal capacity.

Fumigation for quarantine purposes where elimination of specific exotic pests is essential, may require different rates than those specified. These rates are specifically designed and administered by quarantine authorities.

Cylinders in use should be in open air or in force ventilated fume room.

Apply the required amount of VAPORPH<sub>3</sub>OS™ only with CYTEC approved high pressure metering equipment. Turn cylinder valve fully on.

Use extreme caution when handling this product which is a flammable, colourless, highly toxic gas with a garlic-like odour

Show following warning signs prominently at all approaches to every fumigation site:

#### "DANGER - POISON GAS - KEEP AWAY"

Protect by sealing or otherwise, sensitive electrical and electronic equipment (meters, switches, fire alarm systems etc.) containing copper/ copper alloy components. Phosphine corrodes copper-based material

Use of this product should not present a hazard to operators provided they work in accordance with the National Health and Medical Research Council's "Code of practice for the Fumigation of Grain with Phosphine."

#### VENTILATION

Ventilation of structures is complete when phosphine concentrations measured at appropriate locations in the enclosure and work area are below the exposure standard of 0.3 ppm. This may occur before the recommended ventilation time.

Structures containing treated commodities:

- Without through flow: 5 days
- With through flow and forced draught (flash proof fan) minimum of 24 hours

- With through flow and natural draught (wind): 2 - 5 days
- Well-sealed bunker storages: 2 hours, after removal of covering

#### Empty Buildings

- With through flow and forced draught (flash proof fan): 1 to 2 days
- With through flow and natural draught (wind): minimum 2 days

#### STORAGE AND DISPOSAL

Store VAPORPH<sub>3</sub>OS™ cylinders in a cool, well ventilated, locked area out of reach of children or unauthorised persons and away from dwellings.

**Cylinders always remain the property of CYTEC, and should be returned for refilling.**

#### PRECAUTION

DO NOT enter fumigation areas until the concentration of phosphine is below the exposure standard. The use of gas detection tubes or other measuring devices is recommended for monitoring gas levels in fumigation areas.

Keep animals, children and unauthorised persons away from the area under treatment until the concentration of phosphine is below the exposure standard.

#### SAFETY DIRECTIONS

**Can kill if inhaled.**

Avoid contact with eyes and skin. Do NOT inhale vapour. When using the product wear full-face respirator with combined dust and gas cartridge or breathing apparatus with air supply. Wash hands after use

#### FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre Phone: 131126

Remove from contaminated area. Apply artificial respiration if not breathing.

#### MSDS

For additional information refer to  
Cytac MSDS#0010913

APVMA Approval Number 51209/18/0205

WDT 449 3/00

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**DANGEROUS POISON**

**KEEP OUT OF REACH OF CHILDREN**

**READ SAFETY DIRECTIONS BEFORE OPENING OR USING**



## PHOSPHINE FUMIGANT

**ACTIVE CONSTITUENT: 990g/kg PHOSPHINE**  
**A flammable compressed gas fumigant for control of insect pests in produce or buildings.**

**For use by licenced or other authorised personnel as per Directions for Use Table.**

**Net Contents: 18.0 kg Net**

**CYTEC**

CYTEC Australia Holdings Pty. Limited A.B.N. 45 081 148 629  
Suite 1, Level 1, 21 Solent Circuit,  
Baulkham Hills NSW 2153 Australia  
Customer Service/Cylinder Return Phone: 1800 761 007  
**EMERGENCY PHONE: 1800 033 111**



# DIRECTIONS FOR USE

## Restrains:

DO NOT fumigate inhabited buildings

DO NOT fumigate when commodity temperature is less than 15°C



## MINIMUM APPLICATION RATE<sup>1</sup> IN g/m<sup>3</sup> of VAPORPH<sub>3</sub>OS<sup>TM</sup> & MINIMUM CONCENTRATION<sup>2</sup> in ppm phosphine [PH<sub>3</sub>]

to be maintained for the required period

## CRITICAL COMMENTS

- Application rates are based on the internal volume of the enclosure, they apply equally to full, partly full or empty structures
- Concentration of phosphine within the commodity must be measured (at least once a day) to ensure that the required minimum is maintained throughout the commodity.
- Additional VAPORPH<sub>3</sub>OS<sup>TM</sup> should be added to maintain the minimum concentration.
- Temperatures specified are those within the commodity to be fumigated. Phosphine may not give adequate control at commodity temperatures less than 15°C.
- Additional times required for distribution to achieve uniform concentrations throughout the commodity are:
  - add one day for recirculation and for small bins less than 300 tonnes
  - add three days for surface application in structures greater than 300 tonnes and with height less than twice the width.

Stored Product Pests	Commodity Temperature	Minimum Application Rate (g/m <sup>3</sup> ) & Minimum Phosphine Concentration (ppm)						
		0.04 g/m <sup>3</sup> 30 ppm	0.1 g/m <sup>3</sup> 70 ppm	0.2 g/m <sup>3</sup> 140 ppm	0.3 g/m <sup>3</sup> 215 ppm	0.5 g/m <sup>3</sup> 360 ppm	0.7 g/m <sup>3</sup> 500 ppm	1.0 g/m <sup>3</sup> 700 ppm
<i>Rhyzopertha dominica</i> present	15 – 19°C	na	25 days	16 days	14 days	13 days	12 days	10 days
	20 – 24°C	na	24 days	15 days	12 days	10 days	10 days	9 days
	25 – 29 °C	na	Do not fumigate	16 days	10 days	7 days	6 days	5 days
	30°C or higher	na	Do not fumigate	18 days	11 days	7 days	4 days	3 days
All other species And known resistant strains	15 – 19°C	na	18 days	16 days	14 days	13 days	13 days	12 days
	20 – 24°C	na	16 days	14 days	12 days	10 days	10 days	9 days *
	25 – 29 °C	na	12 days	10 days	8 days	7 days	6 days	5 days
	30°C or higher	na	11 days	6 days	5 days	4 days	4 days	3 days
<i>Bruchus pisorum</i> (Pea weevil)	15 – 20°C	na	21 days	na	na	na	na	na
	>20°C	21 days	na	na	na	na	na	na

Cut Flower Pests:  
Adult & larval stages (not eggs) of aphids, thrips, light brown apple moth and other leaf-rolling moths, earwigs, psocids, two spotted mites.

Dosage rate: = 1 g/m<sup>3</sup> (700 ppm)  
Commodity temperature = 15°C min  
Exposure time @ 15°C - 15 hours

na = not applicable  
\* = 10 days if resistant  
Psocoptera present

#SIROFLO (provides a constant concentration of PH<sub>3</sub> in unsealed storage), SIROFUME (an automatic top-up procedure for gas tight storage) & SIROCIRC (recirculated SIROFLO) are trademarks of CSIRO. These approaches require an additional day to distribute the gas throughout the commodity.

**NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.**

WITHHOLDING PERIOD: ALLOW A PERIOD OF 2 DAYS AFTER COMPLETION OF VENTILATION BEFORE USING THE TREATED COMMODITIES FOR HUMAN CONSUMPTION OR STOCK FEED.

**CYTEC Industries Inc.**  
**U.N. No. 2199**  
 COMPRESSED  
**VAPORPH<sub>3</sub>OS™**  
 POISON GAS, FLAMMABLE GAS  
 (CONTAINS 990g/ Kg Phosphine)  
 VAPORPH<sub>3</sub>OS™ is a trademark of CYTEC Industries Inc.  
 ABN 45 081 148 629 1/1 21 Solent Circuit, Baulkham Hills NSW 2153 Australia

**TOXIC GAS 2**

**FLAMMABLE GAS**

PRODUCT CODE 19495S01A11  
 SIZE G  
 CONT: **18.0 kg NET**

**FILL BY WEIGHT ONLY**  
 NRA Approval 51209

**RISKS:** ● VERY TOXIC BY INHALATION ● FLAMMABLE  
 ● DAMAGE MAY CAUSE CYLINDER RUPTURE  
 ● SAFETY: ● KEEP LOCKED UP AND OUT OF REACH OF CHILDREN  
 ● KEEP CONTAINER TIGHTLY CLOSED AND IN A WELL VENTILATED PLACE  
 ● DO NOT BREATHE GAS ● WEAR SUITABLE PROTECTIVE CLOTHING  
 ● DO NOT HEAT CYLINDER ● KEEP AWAY FROM COMBUSTIBLE MATERIAL  
 ● USE NO OIL OR GREASE ON VALVE ● USE EQUIPMENT COMPATIBLE WITH CONTENTS AND PRESSURE ● OPEN VALVE SLOWLY AND SHUT AFTER USE ● REPLACE VALVE OUTLET CAP WHEN NOT IN USE ● USE STRICTLY AS DIRECTED ON NECK/TIE LABEL

**FIRST AID:** ● IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL CONTACT DOCTOR OR POISONS INFORMATION CENTRE ● PHONE: 131126 ● **IN EMERGENCY PHONE 1800 033 111**