TECHNICAL GRADE MAGNESIUM PHOSPHIDE

(FOR USE ONLY IN THE MANUFACTURE OF MAGNESIUM PHOSPHIDE FUMIGANTS)

GUARANTEE: Magnesium Phosphide......93%

REGISTRATION NO.: 25581 PEST CONTROL PRODUCTS ACT

READ THE LABEL BEFORE USING.

(skull & crossbones - red) DANGER - POISON (red) (skull & crossbones - red)

DANGER: KEEP OUT OF REACH OF CHILDREN AND PREVENT ACCESS BY UNAUTHORIZED PERSONNEL

Net Contents: 180kg

Manufactured by:
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FOR

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DIRECTIONS FOR USE:

To be used only in the manufacture of a pesticide which is registered under the Pest Control Products Act.

PRECAUTIONS:

Forms Extremely Hazardous Gas.

KEEP OUT OF REACH OF CHILDREN AND PREVENT ACCESS BY UNAUTHORIZED PERSONNEL.

Fatal if inhaled, swallowed or absorbed through eyes or skin.

DO NOT inhale.

DO NOT ingest.

DO NOT get in eyes or on skin or clothing.

DO NOT eat, drink or smoke while handling TECHNICAL GRADE MAGNESIUM PHOSPHIDE.

Exposure to moisture in the air or liquids releases flammable and toxic hydrogen phosphide (phosphine. PH₃) gas. Spontaneous ignition may result if contacted by liquids such as water, acids, or chemicals.

Wear a loose fitting long sleeve shirt, long pants, socks and shoes, and wear dry gloves of cotton or other breathable material when handling TECHNICAL GRADE MAGNESIUM PHOSPHIDE.

Appropriate respiratory protection must be worn as outlined below. If a beard or long sideburns interfere with the fit of respiratory protection, they must be shaven.

For hydrogen phosphide levels between $0.1-5\,\mathrm{ppm}$, the minimum protection required is a NIOSH-approved air-purifying full face piece respirator (gas mask) with a chin style, front-or back-mounted canister

approved for hydrogen phosphide OR a NIOSH- approved supplied-air respirator (i.e., air-line respirator or self-contained breathing apparatus) with a full face piece.

For hydrogen phosphide levels above 5 ppm or at unknown concentrations, a NIOSH- approved self contained breathing apparatus with a full face piece operated in a pressure-demand or other positive-pressure mode <u>OR</u> a NIOSH-approved air-line respirator with a full face piece operated in a pressure-demand or other positive-pressure mode combined with an auxiliary self-contained positive-pressure breathing apparatus must be worn.

For emergency use and/or to escape from conditions which are Immediately Dangerous to Life or Health (IDLH), keep available for use an adequate number of NIOSH- approved self-contained breathing apparatus (SCBA) with a full face piece operated in a pressure-demand or other positive-pressure mode.

ENVIRONMENTAL HAZARDS:

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands by cleaning of equipment or disposal of wastes.

FIRST AID:

Symptoms of exposure to hydrogen phosphide gas releasing products can include headache, dizziness, nausea, difficult breathing, vomiting, and diarrhea. In all cases of exposure, protect yourself, remove the person from the source of exposure and get them to an Emergency department. If possible, bring the container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

FIRST AID RESPONDER PROTECTION: Hydrogen phosphide gas is a highly toxic systemic poison and a severe respiratory tract irritant. Persons exposed to solid phosphides, which react with moisture to produce hydrogen phosphide gas, can pose risks to others if phosphides are on clothes, skin, or hair. First Aid responders should protect themselves through the use of appropriate personal protective equipment before attempting to rescue or care for a

person who has been exposed to a hydrogen phosphide gas releasing product, and/or if entering a zone with potentially unsafe hydrogen phosphide levels. A NIOSH-approved self-contained breathing apparatus (SCBA) with a full face piece operated in a pressure-demand or other positive-pressure mode OR a NIOSH-approved air-line respirator with a full face piece operated in a pressure-demand or other positive-pressure mode combined with an auxiliary self-contained positive-pressure breathing apparatus is recommended in response situations that involve exposure to potentially unsafe or unknown levels of hydrogen phosphide (see the PRECAUTIONS for further guidance regarding personal protective equipment).

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration using a bag-valve-mask device to prevent possible secondary exposure to hydrogen phosphide gas to the first aid responder. Do not perform mouth-to-mouth resuscitation. Do not give anything by mouth to an unconscious person. Call a poison control centre or doctor immediately for further treatment advice.

IF SWALLOWED: Call a poison control centre or doctor immediately for treatment advice. DO NOT DRINK WATER. Do not administer anything by mouth or make the person vomit. It is likely that this exposure will lead to spontaneous vomiting.

IF ON SKIN OR CLOTHING: Brush or shake material off clothes and shoes in a well-ventilated area. Allow clothes to aerate in a ventilated area prior to laundering. Do not leave contaminated clothing in occupied and/or confined areas such as automobiles, vans, motel rooms, etc. Wash contaminated skin thoroughly with soap and water/or 15-20 minutes. Call a poiso n control centre or doctor for further treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

TOXICOLOGICAL INFORMATION:

Technical Grade Magnesium Phosphide containing magnesium phosphide reacts with moisture from the air, acids and many other liquids to release hydrogen phosphide (phosphine, PH3) gas. Mild exposure by inhalation causes malaise (indefinite feeling of sickness), ringing in the ears, fatigue, nausea and

pressure in the chest which is relieved by removal to fresh air. Moderate poisoning causes weakness, vomiting, pain just above the stomach, chest pain, diarrhea and dyspnea (difficulty in breathing). Symptoms of severe poisoning may occur within a few hours to several days resulting in

pulmonary edema (fluid in lungs) and may lead to dizziness, cyanosis (blue or purple skin colour), unconsciousness and death.

In sufficient quantity, hydrogen phosphide affects the liver, kidneys, lungs, nervous system and circulatory system, and may result in (1) pulmonary edema, (2) liver elevated serum AST, ALT and ALP, reduced prothrombin, hemorrhage and jaundice (yellow skin colour) and (3) kidney haematuria (blood in urine) and anuria (abnormal or lack of urination).

Pathology is characteristic of hypoxia (oxygen deficiency in body tissue). Frequent exposure to concentrations above permissible levels over a period of days or weeks may cause poisoning. Inhalation can cause lung edema (fluid in lungs) and hyperaemia (excess of blood in a body part), small perivascular brain haemorrhages and brain edema (fluid in brain). Poisonous if swallowed. Ingestion can cause lung and brain symptoms but damage to the viscera (body cavity organs) is more common. Treatment is symptomatic.

The following measures are suggested for use by the physician in accordance with the physician's own judgment: In its milder to moderate forms, symptoms of poisoning may take up to 24 hours to appear.

Monitoring should continue for at least this long. Manifestations of severe poisoning appear early. Hypoxia and hypotension should be treated with usual supportive measures of oxygenation, intubation,

ventilation and positive pressure as needed, and intravenous fluids, pressors and inotropes as required, respectively. In the event of the ingestion of a large quantity of magnesium phosphide, once the patient is stabilized, aspiration of gastric contents by inserting a 16 french naso-gastric tube to suction the stomach contents might be considered. There is no specific antidote.

Hemodialysis may be indicated if renal failure develops but does not remove the toxin.

DECONTAMINATION AND DISPOSAL:

This material is a hazardous waste. Do not dispose of magnesium phosphide until it has been deactivated (hydrolysed) by a wet or dry method. Canadian formulators using this product should dispose of unwanted active ingredient and container in accordance with municipal and provincial regulations. For additional details and clean up of spills, contact the provincial regulatory agency or the manufacturer.

NOTICE TO USER:

This pest control product is to be used only in accordance with the directions on the label. It is an offense under the PEST CONTROL PRODUCTS ACT to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.