GROUP 1B INSECTICIDE

THIMET® 20-G

GRANULAR SOIL AND SYSTEMIC INSECTICIDE

contains phorate

RESTRICTED NOT FOR USE IN BRITISH COLUMBIA

GUARANTEE: phorate 20%

REGISTRATION NO. 29000 PEST CONTROL PRODUCTS ACT



D A N G E R

EYE AND SKIN IRRITANT

POTENTIAL SKIN SENSITIZER

IN CASE OF EMERGENCY ENDANGERING LIFE OR PROPERTY INVOLVING THIS PRODUCT, CALL DAY OR NIGHT 1-888-462-6822

KEEP OUT OF REACH OF CHILDREN AND PREVENT ACCESS BY UNAUTHORIZED PERSONNEL READ THE LABEL BEFORE USING

NET CONTENTS: 22 kg



AMVAC Chemical Corporation 4100 E. Washington Blvd. Los Angeles, CA 90023 USA 1-888-462-6822

NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence 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.

NATURE OF RESTRICTION:

- Product must be applied with a SmartBox pesticide application system properly calibrated to ensure accurate placement and rate.
- This product is to be stored and displayed APART from food and feed.
- Do not handle product with bare hands.
- Do not breathe dust.
- For use ONLY in potato fields where wireworm populations have been observed.
- Failure to follow precautions including wearing proper Personal Protective Equipment (PPE) and failure to follow Engineering Controls may result in serious or even life threatening poisoning requiring immediate medical attention. The active ingredient in this granular formulation can be absorbed through skin to cause poisoning.
- This product is ONLY for retail sale to and use by individuals holding an appropriate pesticide applicator certificate or license recognized by the provincial/territorial pesticide regulatory agency where the pesticide application occurs.
- A plant-back interval of 6 months for all crops, except potatoes is required. There is no plantback restriction required for crops on the label (i.e., potatoes).
- NOT TO BE APPLIED BY AIRCRAFT.
- Do not use in British Columbia

DIRECTIONS FOR USE RESTRICTED USES: FOR USE ON POTATOES ONLY

THIMET 20-G must be applied with a SmartBox pesticide applicator properly calibrated to ensure accurate placement and rate. Please refer to the SmartBox operator's manual for detailed information on system operation and calibration procedures.

SITE	PESTS	RATE Grams Product/ 100 M	APPLICATION
Potato	Wireworm	105	Distribute the granules evenly in the furrow at
		in sandy or light	planting time.
		soil	
			Do not use in muck soils.
		161	
		in silt or heavy soils	Do not apply later than at planting time.

	Do not harvest pe	otatoes before 90 days after
	planting time.	

THE TABLE BELOW OUTLINES APPLICATION RATES AT VARIOUS ROW SPACING

Minimum row spacing to be used is 81 cm (32 inches). If narrower row spacing is to be used, the maximum application rate of product in sandy/light soil is 12.9 kg/ha, and in silt/heavy soils is 19.8 kg/ha.

THIMET 20-G APPLICATION RATE

POTATOES		105 g/100 m o	f row in sandy or lig	ht soil		
Row Spacing	95 cm	85 cm	80 cm	81 cm		
kg/hectare	11.0	12.3	13.1	12.9		
	161 g/100 m of row in silt or heavy soils					
		161 g/100 m o	or row in sitt or neavy	y sons		
Row Spacing	95 cm	161 g/100 m c 85 cm	80 cm	81 cm		



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

Fatal or poisonous if swallowed, absorbed through the eyes or skin, or if inhaled. Potential skin sensitizer.

RAPIDLY ABSORBED THROUGH SKIN

REPEATED INHALATION OR SKIN CONTACT WITH THIMET 20-G,

OTHER ORGANOPHOSPHOROUS OR CARBAMATE INSECTICIDES MAY, WITHOUT SYMPTOMS, PROGRESSIVELY INCREASE SUSCEPTIBILITY TO POISONING.

DO NOT GET IN EYES, ON SKIN, ON CLOTHING. DO NOT INHALE DUST. CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE.

Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are those made of waterproof material. If you want more options, follow the instructions for Category A on a chemical resistance category selection chart.

- While loading product, clean-up and repair, workers must wear:
 - chemical-resistant coveralls over a long-sleeved shirt and long pants,
 - chemical-resistant gloves,
 - chemical-resistant footwear plus socks,
 - protective eyewear, and
 - a respirator with a NIOSH-approved organic-vapour-removing cartridge with a prefilter approved for pesticides (or a NIOSH-approved canister approved for pesticides) with any N, R, P or HE filter.

See Engineering Controls for additional requirements.

- Applicators in closed-cabs must wear:
 - cotton coveralls over a long-sleeved shirt and long pants,
 - shoes and socks.

See Engineering Controls for closed-cab requirements and additional PPE requirements and precautions for when exiting the cab.

- Where closed-cabs are not available, applicators must wear:
 - chemical-resistant coveralls over a long-sleeved shirt and long pants,
 - chemical-resistant gloves,
 - chemical resistant footwear plus socks,
 - protective eyewear, and
 - a respirator with a NIOSH-approved organic-vapour-removing cartridge with a prefilter approved for pesticides (or a NIOSH-approved canister approved for pesticides) with any N, R, P or HE filter.

This is applicable to all persons present during application operations, including those on the planting equipment.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Wash all PPE after each day's use.

Do not reuse contaminated clothing. Clothing and protection equipment heavily contaminated must be destroyed according to provincial and local regulations. HEAVILY CONTAMINATED CLOTHING CANNOT BE ADEQUATELY DECONTAMINATED.

Engineering Controls:

Loading:

This product must be loaded with a SmartBox closed loading system.

Applicators in closed cab:

- Must wear cotton coveralls over a long-sleeved shirt and long pants, shoes and socks
- Must either use an enclosed cab that provides respiratory protection against organic vapours and dust OR wear a respirator with a NIOSH-approved organic-vapour-removing cartridge with a prefilter approved for pesticides (or a NIOSH-approved canister approved for pesticides) with any N, R, P or HE filter or
- Must be provided and must have immediately available for use and must wear if they must exit the cab in the treated area: protective eyewear, coveralls, chemical-resistant gloves, chemical-resistant footwear, and, if using an enclosed cab that provides respiratory protection, a NIOSH-approved organic-vapour-removing cartridge with a prefilter approved for pesticides (or a NIOSH-approved canister approved for pesticides) with any N, R, P or HE filter
- Take off any PPE that was worn in the treatment area before re-entering the cab, and
- Store all such PPE in a chemical resistant container, such as a plastic bag, to prevent contamination of the inside of the cab.

Restricted Entry Interval (REI):

• Do not enter or allow workers to enter into treated areas during the restricted entry interval (REI) of 48 hours.

DO NOT HANDLE THIMET 20-G WITH BARE HANDS.

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Failure to follow precautions including wearing proper Personal Protective Equipment and failure to follow Engineering Controls may result in serious or even life threatening poisoning requiring immediate medical attention. The active ingredient in this granular formulation can be absorbed through skin to cause poisoning.

DO NOT CONTAMINATE FOOD AND FEED PRODUCTS.

KEEP ALL UNPROTECTED PERSONS OUT OF OPERATING AREAS.

NOT FOR USE OR STORAGE IN OR AROUND THE HOME. This product is to be stored or displayed AWAY from food and feed.

KEEP OUT OF REACH OF DOMESTIC ANIMALS.

Do not contaminate any body of water nor apply to any area not specified on the label.

ENVIRONMENTAL HAZARDS

Toxic to earthworms and aquatic organisms. Toxic to birds and small wild mammals. Any spilled or exposed granules must be incorporated into the soil or otherwise cleaned-up from the soil surface. Its use poses a high risk to these species as has been documented by incident reports of adverse effects. One granule is sufficient to kill a small bird or small mammal. If an adverse effect on birds or mammals is observed or suspected, please submit a Pesticide Voluntary Incident Reporting Form (available on Health Canada's PMRA website) directly to Health Canada. To obtain assistance, please call 1-800-267-6315.

To minimize risks:

- Any granules that may be left exposed on the ends of the treated rows, turns and field loading areas must be covered with soil. Prevent the unintended release of granules when moving equipment by ensuring that the flow of granules is turned off. Make sure that hoppers of equipment are emptied during treatment in the field.
- Apply only with the SmartBox pesticide applicator properly calibrated to ensure accurate placement and rate. The SmartBox applicator must be fitted with a pinch valve at the base of the in-furrow delivery tube to control against the release on any remaining product left in the discharge tube after the planter is raised.
- As a best management practice, use a two-stage lifting system at the end of each row during planting to further ensure that Thimet 20-G granules are not exposed on the soil surface is recommended.
- If a spill occurs on the ground, collect the material immediately and dispose of it as described in **PROCEDURE FOR DECONTAMINATION OF SURFACES** section of the label.
- Do not apply at rates higher than those listed on the product label.
- For use ONLY in potato fields where wireworm populations have been observed.
- This product is ONLY for retail sale to and use by individuals holding an appropriate pesticide applicator certificate or license recognized by the provincial/territorial pesticide regulatory agency where the pesticide application occurs.
- Insecticide use should be based on an IPM program that includes scouting and record keeping, and considers cultural, biological and other chemical control practices. Crop rotation with barley may promote wireworm populations; please consult with provincial/regional crop specialists to determine potential crop rotation options.

Use Best Management Practices (BMPs) for minimizing surface runoff in the following areas:

- Poorly drained or wet soils with readily visible slopes toward adjacent surface water
- Areas over-laying extremely shallow ground water
- Areas with in-field canals or ditches that drain to surface water
- Areas not separated from adjacent surface waters with vegetated filter strips
- Areas over-laying tile drainage systems that drain to surface water

When used on erodible soils, BMPs for minimizing runoff should be followed. Consult your local soil conservation service for recommendations in your use area.

In particular, where highly erodible land (HEL) is adjacent to aquatic bodies, leave a 20 m (66 feet) buffer/setback area in grass or other natural vegetation.

Restrictions:

- Do not apply this product by air.
- Do not apply more than one application of **Thimet 20-G** per crop per season.
- Do not apply this product to saturated soils. Do not apply in wet soil conditions that may prevent the equipment from covering pesticide granules. Do not apply while precipitation conducive to runoff is occurring or while conditions favor runoff from the treated area. Do not apply when forecasted precipitation event favors runoff from treated area.
- Do not apply this product without the use of a pinch valve at the base of the in-furrow delivery tube.

Under some conditions phorate may have a high potential for runoff into surface water for several days following application. Do not apply in the following areas:

- Frequently flooded areas
- Areas where intense or sustained rainfall is forecast to occur within 48 hours

Do not apply within 15 m (50 feet) of any drinking water well to minimize potential contamination.

Do not wash, load, or empty application equipment near any well, as this practice is a potential source of ground water contamination.

DISPOSAL AND DECONTAMINATION INSTRUCTIONS

WARNING

Since alcohols are involved in the decontamination procedure AVOID smoking, open flames and sparks in the operating area.

Keep unprotected persons out of the contaminated area.

PROCEDURE FOR DECONTAMINATION OF SURFACES

- 1. To minimize dust formation, cover spilled granules with an absorbent material such as sweeping compound. Sweep up the granules and place in a tightly closed labelled container. Store in a secure place away from food, feed and access to children. Contact AMVAC Chemical Corporation or the provincial regulatory agency to obtain details on how to detoxify product.
- 2. Dispose of broken containers in accordance with provincial requirements but DO NOT BURN. Dispose of empty alternate containers in accordance with provincial requirements.
- 3. Wash the surface with a bleach decontamination solution prepared by mixing nine (9) litres water with one (1) litre commercial bleach and one-half (0.5) litre of rubbing alcohol. Rinse with clean water. Clean up the liquid with absorbent material such as sawdust, sweeping compound, rags or other materials.

- Repeat the washing with the bleach solution and water and clean up the liquid as instructed in point 3.
- 5. Dispose of the contaminated absorbent material in accordance with provincial requirements.
- 6. Wash disposal equipment with the bleach decontamination solution and rinse with clean water.
- 7. If spill occurs on the ground, collect the material and dispose of it as described in point 1. Treat the affected area with the decontamination solution and cover with clean soil.

DISPOSAL

DO NOT DISCARD THE CONTAINER. Do not attempt to open or tamper with the container. Completely empty container into application equipment. All SMARTBOX containers must be returned per instructions provided or by calling 1-888-SMARTBOX. For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose

For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

FIRST AID

CALL A PHYSICIAN OR POISON CONTROL CENTRE IMMEDIATELY IN ALL CASES OF SUSPECTED POISONING.

If swallowed, Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

If inhaled, Immediately move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

If on skin or clothing, Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

If in eyes, Hold eye open and immediately 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.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION

Phorate is an organophosphate that is a cholinesterase inhibitor. Typical symptoms of overexposure to cholinesterase inhibitors include headache, nausea, dizziness, sweating, salivation, runny nose and eyes. This may progress to muscle twitching, weakness, tremor, incoordination, vomiting, abdominal cramps and diarrhea in more serious poisonings. A life-threatening poisoning is signified by loss of consciousness, incontinence, convulsions and respiratory depression with a secondary cardiovascular component. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate degree of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote. Oximes, such as pralidoxime chloride, may be therapeutic if used early; however, use only in conjunction with atropine. In cases of severe acute poisoning, use antidotes immediately after establishing an open airway and respiration. With oral exposure, the decision of whether to induce vomiting or not should be made by an attending physician.

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, THIMET 20-G contains a Group 1B insecticide. Any insect population may contain individuals naturally resistant to THIMET 20-G and other Group 1B insecticides. The resistant individuals may dominate the insect/mite population if this group of insecticides is used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance:

- Where possible, rotate the use of THIMET 20-G or other Group 1B insecticides with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that is effective on the target pest when such use is permitted.
- Insecticide use should be based on an IPM program that includes scouting and record keeping, and considers cultural, biological and other chemical control practices.
- Monitor treated pest populations for resistance development.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance, contact AMVAC Chemical Corporation at 1-888-462-6822.

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