

GROUP 1 FUNGICIDE

ARBOTECT® 20-S

FUNGICIDE

SUSPENSION

COMMERCIAL

FOR USE BY ARBORISTS AND OTHERS TRAINED IN THE RECOGNITION OF DUTCH ELM DISEASE AND TREE INJECTION TECHNIQUES

ARBOTECT 20-S aids in the control of Dutch elm disease (*Ceratocystis ulmi*) in elm trees. It is a systemic fungicide that controls fungal diseases by curative (eradicator) and protective action, if used according to label directions.

GUARANTEE:

Thiabendazole 20% w/w

**READ THE LABEL AND ATTACHED BOOKLET BEFORE USING
KEEP OUT OF THE REACH OF CHILDREN**

CAUTION



POISON

CAUTION: EYE, SKIN AND RESPIRATORY TRACT IRRITANT

REGISTRATION NO.: **16694**
PEST CONTROL PRODUCTS ACT

NET CONTENTS: **3.785 L**

Syngenta Canada, Inc.
140 Research Lane, Research Park
Guelph, Ontario
N1G 4Z3
Telephone: 1-877-964-3682

Label

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.

FIRST AID

IN CASE OF POISONING, contact a physician or a poison control centre **IMMEDIATELY**. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

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 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.

If inhaled, 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 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.

TOXICOLOGICAL INFORMATION

NOTE TO PHYSICIAN: Although this product is not irritating and has low toxicity in animal studies, it is very acidic.

There is no specific antidote, if this product is ingested. Treat symptomatically. This product was non-toxic by the oral route in laboratory animals. Accidental ingestion of large amounts of thiabendazole may cause the following adverse reactions: gastrointestinal disorders, dizziness, headache, blurring of vision, change in urine appearance and odour, and hypersensitivity reactions.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

Avoid contact with skin and eyes. Avoid inhalation of vapour.

Harmful if swallowed. May irritate eyes, skin and respiratory tract. Workers must wear a long-sleeved shirt and long pants, and chemical-resistant gloves when handling the product.

Acid solution – use only with stainless steel or resistant plastics.

DO NOT APPLY BY AIR.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic organisms. Do not contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes. Do not discharge effluent containing this product into sewer systems, lakes, streams, ponds, estuaries, oceans and other waters.

STORAGE

PRODUCT FREEZING TEMPERATURE IS BETWEEN -3.89 TO -1.67°C

Satisfactory utility is restored after thawing and mixing of product. Repeat freezing and thawing of the product should be avoided. KEEP COVER ON OPENED CONTAINER TO PREVENT DRYING.

Before using ARBOTECT 20S with other chemicals, consult the manufacturer.

DECONTAMINATION AND DISPOSAL

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

CONTAINER DISPOSAL :

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

***IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING,
CALL 1-800-327-8633 (FASTMED)***

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DIRECTIONS FOR USE - 1 YEAR TREATMENT:

Preventative treatment – For each 13 cm of trunk diameter, inject 30 mL of ARBOTECT 20-S diluted in 1.2 litres of water to 60 mL ARBOTECT 20-S diluted in 2.4 litres of water. Use the higher levels of Arbotect 20-S under high disease pressure situations.

Preventive applications should be made when leaves approach full size, usually in late May or June.

Therapeutic treatment – For each 13 cm of trunk diameter, inject 60 mL of ARBOTECT 20-S diluted in 2.4 litres of water to 120 mL of ARBOTECT 20-S diluted in 4.8 litres of water. Use the higher levels of ARBOTECT 20S under high disease pressure situations. At therapeutic dilution rates, chemical injury may occur. Therapeutic applications should be made as soon as the current year infections are seen, usually in late June through August.

For optimum disease control, preventive treatment is recommended. When a tree shows more than 5% crown symptoms, treatment may not be effective. Treatment should be used in conjunction with an insect control and sanitation program (pruning of diseased limbs) in order to obtain best results. **Trees that are 13 cm or less in diameter at chest height should not be treated.**

Follow the operating instruction supplied with the injection equipment used. Place injection sites at 7.5 – 25 cm intervals around the base of the tree with a maximum hole diameter of 1.3 cm using a minimum of 3 - 4 equally spaced injection points per tree. If pressure injection is used, do not exceed 700 kPa (100 psi).

DIRECTIONS FOR USE - 3 YEAR TREATMENT:

For Preventive and Therapeutic Treatment of Dutch Elm Disease – Inject 360 mL of ARBOTECT 20-S diluted in 24 litres of water for each 13 cm trunk diameter. Inject into any exposed root flares, below ground (15cm), **once every three years**. The maximum diameter of the injection holes should be 1.3 cm. **Do not use this treatment if trees are less than 25.4 cm in diameter. When a tree shows more than 5% crown symptoms, treatment may not be effective.** Treatment should be used in conjunction with an insect control and sanitation program (pruning of diseased limbs) in order to obtain best results.

Do not dilute ARBOTECT 20-S with highly alkaline water as a precipitate may form. If it does occur, use another water source.

Tree injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Syngenta Canada, Inc. or the seller.

Treatment may not be effective if tolerant strains develop. Use of alternative treatments should be considered when treatment with the product proves ineffective.

RESISTANCE MANAGEMENT

For resistance management, please note that Arbotect 20-S contains a Group 1 fungicide. Any fungal population may contain individuals naturally resistant to thiabendazole and other Group 1 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance management strategies should be followed to delay fungicide resistance:

Where possible, rotate the use of Arbotect 20-S or other Group 1 fungicides with different groups that control the same pathogens.

Fungicide use should be based on an IPM program that includes scouting, historical information related to pesticide use and crop rotation and considers cultural, biological and other chemical control practices.

Monitor treated fungal populations for sign of resistance development.

If disease continues to progress after treatment with this product, do not increase the use rate. Discontinue use of this product, and switch to another fungicide with a different mode of action, if available.

Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or IPM recommendations for specific crops and pathogens. For further information and to report suspected resistance, contact Syngenta Canada, Inc. at 1-877-SYNGENTA (1-877-964-3682) or at www.syngenta.ca.

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