MATERIAL SAFETY DATA SHEET

QUADRIS TM FLOWABLE FUNGICIDE

MSDS No. US006058_01

Version: 3 Date issued: 06/16/97 Date printed: 06/17/97

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company : Zeneca Agricultural Products

1800 Concord Pike Wilmington DE 19850

Phone number : (302) 886-1000

Emergency phone : Medical: 800-327-8633 (1-800 FASTMED)

Chemtrec: 800-424-9300 Technical:302-886-3000

Name used on label : QUADRIS $^{\text{TM}}$ FLOWABLE FUNGICIDE

Product use : Fungicide

A Registered Trade Mark of Zeneca Agricultural Products

Section 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Identity CAS-no. Typical % Other information

AZOXYSTROBIN TECHNICAL

131860-33-8 22.9 %

Other Ingredients:

77.1 %

Section 3 - HAZARDS IDENTIFICATION

Health hazards:

This material may cause mild irritation following eye contact.

Physical hazards:

None

Section 4 - FIRST AID MEASURES

IF IN EYES:

Immediately flush with plenty of water for at least 15 minutes. If redness, itching or a burning sensation develops, have eyes examined and treated by medical personnel.

IF ON SKIN:

Wash material off the skin with plenty of soap and water. Irritation will probably not develop following contact with human skin. If redness, itching or a burning sensation develops, get medical attention.

IF SWALLOWED:

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Provided the patient is conscious, give 1 or 2 glasses of water to drink. Immediately contact Zeneca's Emergency Information Network at 1-800-F-A-S-T-M-E-D (327-8633). Vomiting should only be induced under the direction of a physician or a poison control center. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer water. Immediately transport victim to an emergency facility.

IF INHALED:

Remove victim to fresh air. Apply artificial respiration if breathing has ceased or shows signs of failing. Obtain medical attention as a precaution.

Section 5 - FIRE FIGHTING MEASURES

Flash point :

Does not flash

Autoignition temperature :

Not available.

Explosive properties :

LEL: Not applicable.

EXTINGUISHING MEDIA:

For small fires, use foam, carbon dioxide or dry powder extinguishant. For large fires, use foam or water-fog; avoid use of water jet. Contain run-off water with, for example, temporary earth barriers.

PROTECTIVE EQUIPMENT:

A self contained breathing apparatus and suitable protective clothing must be worn in fire conditions.

Section 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Ensure suitable personal protection during removal of spillages. This means wearing eye protection, chemically resistant gloves, boots and coveralls. METHODS FOR CLEANING UP:

Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Wash the spillage area with water, and flush to a sewer serviced by a wastewater treatment facility, if that facility is permitted to treat such wastewaters. Washings must be prevented from entering surface water drains.

ADDITIONAL INFORMATION:

If near valuable shrubs or trees, remove soil.

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Section 7 - HANDLING AND STORAGE

SAFE HANDLING ADVICE:

Avoid contact with skin and eyes. When using do not eat, drink or smoke. Wash face and hands before eating, drinking or smoking.

REQUIREMENTS FOR STORAGE ROOMS:

Keep in original containers, tightly closed, out of reach of children. Keep away from food, drink and animal feeding stuffs. Exposure to extremes of heat and cold should be avoided.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits

ZENECA Standard AZOXYSTROBIN TECHNICAL

8 hr TWA 2 mg/m³

OES/HSE Propane-1,2-diol (Propylene glycol)

Total(vapour & particulates)
8 hr TWA 150 ppm

 470 mg/m^3

Particulates

8 hr TWA 10 mg/m^3

Not applicable to field use.

Occupational exposure standards

No ACGIH TLV or OSHA PEL assigned. Minimize exposure in accordance with good hygiene practice.

ENGINEERING CONTROLS:

This product is intended for use outdoors where engineering controls are not necessary.

BODY PROTECTION:

This product is FIFRA regulated. Refer to product labeling for end-user Personal Protection requirements.

Applicators and other handlers must wear: Long-sleeved shirt and long pants, waterproof gloves and shoes plus socks.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls, waterproof gloves and shoes plus socks.

HYGENIC MEASURES:

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing 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.

GENERAL PERSONAL PROTECTION:

An adequate supply of clean potable water should be available to allow

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thorough flushing of skin and eyes in event of contact with this compound.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid

Color : Beige to brown Odor : Not available. Density : 1.096 g/ml

Solubility : miscible in/with water

pH-value (quant.)

: 7

Oxidizing properties: Not applicable.

Section 10 - STABILITY AND REACTIVITY

HAZARDOUS REACTIONS (CONDITIONS TO AVOID)

Stable under normal conditions.

Hazardous polymerization: Will not occur

HAZARDOUS REACTIONS (MATERIALS TO AVOID)

oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS

Combustion products - Carbon dioxide, carbon monoxide.

Section 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY (LETHAL DOSES)

LD50 Oral rat

Dose : > 5000 mg/kg Additional inform. : Low oral toxicity.

LD50 Dermal rat

Dose : > 2000 mg/kg

LC50 Inhalation rat

Dose : > 6.32 mg/l

Additional inform. : Unlikely to cause harmful effects under normal

conditions of handling and use.

ACUTE TOXICITY (IRRITATION, SENSITIZATION ETC.)

Eye Irritation

Results : Mild irritant to rabbit eyes.

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Skin Irritation

Results : Practically non-irritant to rabbit skin.

Skin Sensitization - Buehler

Results : It is not a skin sensitizer.

Inhalation

Results : PRACTICALLY NON-IRRITANT

DELAYED OR CHRONIC TOXICOLOGICAL EFFECTS

Long Term Exposure

Symptoms : No long term risks to man are associated with the

normal handling and use of this material.

GENERAL INFORMATION ABOUT ACUTE OR OTHER TOXICITIES

Subchronic and chronic studies at high doses showed bile duct and liver

effects in lab animals.

Studies in animals have shown that repeated doses produce no carcinogenic,

reproductive or developmental effects.

Material was not mutagenic in lab studies.

Inform. applies to : AZOXYSTROBIN TECHNICAL

Section 12 - ECOLOGICAL INFORMATION

ECOTOXICITY

Toxicity to fish LC50 bluegill sunfish

Dose : 1.1 ppm

Additional inform. : Toxic to fish.

Inform. applies to : AZOXYSTROBIN TECHNICAL

Toxicity to daphnia

EC50 daphnia magna

Dose : 259 ppb

Inform. applies to : AZOXYSTROBIN TECHNICAL

Section 13 - DISPOSAL CONSIDERATIONS

Discarded product is not a hazardous waste under RCRA, 40 CFR 261. Plastic Containers: Triple rinse (or equivalent); then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or alternatives allowed by State and local authorities.

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Section 14 - TRANSPORT INFORMATION

ROAD TRANSPORT DOT Not regulated by DOT.

Section 15 - REGULATORY INFORMATION

Other regulations, restrictions and prohibitions

TSCA (Toxic Substances Control Act) Regulations, 40CFR 710:

This product is a pesticide and is exempt from TSCA regulation.

CERCLA and SARA Regulations (40 CFR 355, 370, and 372):

This product does not contain any chemicals subject to the reporting requirements of SARA Section 313.

EPA

EPA Registration no.: 10182-415

Section 16 - OTHER INFORMATION

The information on this sheet is not a specification, it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions or recommendations are not followed.

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