

MATERIAL SAFETY DATA SHEET

NAME OF MATERIAL/PREPARATION

KNOXBORO

Date of Preparation	15/05/2013
Date of Issue	15/05/2013
MSDS No	FORM_MSDS_R&D_098_00
Renewal Date/No	

Sayfa No: 1/10

PREPARED BASED ON REGULATION ON PREPARATION AND DISTRIBUTION OF SAFETY DATA SHEETS ABOUT HAZARDOUS MATERIALS AND PREPARATIONS (O.G. issue no 27092 dated 26/12/2008).

1. MATERIAL/PREPARATION AND COMPANY/OWNER IDENTIFICATION:

1.1 Material/Preparation Identification:

Product Name : **KNOXBORO**
Product Content : Difenoconazole 250 g/L
Formulation Form : EC (Emulsion Consantre)

Difenoconazole

Cas No: 119446-68-3

FRAC: 3, G1 SBI Class I, DMI: triazole

1.2 Usage of the Material/Preparation:

Fungicide

Company Identification:

Manufacturing and License Holding Company:

Company Name: AGRİ SCIENCES TARIM VE İLAÇ ÜR. SAN. TİC. LTD. ŞTİ.

Address : Bekir Saydam Caddesi Pancar No: 31 Torbalı / İZMİR

Telephone : +90 0232 864 13 33

Fax : +90 0232 864 16 79

1.3 Emergency Contact Telephone:

In case of an emergency please call +90 0232 864 13 33.

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2. COMPOSITION AND INFORMATION ON INGREDIENTS:

Material	%	CAS No	EINECS/ELINCS	Hazard	R ¹	Classification
Difenoconazole	250	119446-68-3	-	Xn; N	R22, R50/53	Xn; R22, N; R50/53
M-Pyrol	100	872-50-4	212-828-1	Xi, Repr. Cat. 2	R61, R36/37/38	Xi; R36/37/38
Solvesso 100	500-600	918-668-5	-	Xn; Xi	R10, R20/21, R38	R10, Xn; R20/21, R38
Diğerleri	Outside classification due to absence of hazardous material.					

- R explanations are under section 16.

3. TEHLİKELERİN TANITIMI:



Xn: HARMFUL



N: DANGEROUS FOR THE ENVIRONMENT

R10: Flammable

R20/21: It is harmful in case of inhaled and contact with skin.

R22: it is harmful in case of swallowed.

R36/37/38: Irritating to eyes, respiratory system and skin.

R50/53: It is too toxic for aquatic environments, may cause long-term negative effects in aquatic environments.

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4. FIRST AID MEASURES:

User safety: Wash your hands and face before eating, drinking and smoking. If any discomfort is felt, stop the work immediately and take first aid precautions. After the work is done clean the protective equipment thoroughly and wash the body parts exposed to the pesticide and after that wear your daily clothes.

Symptoms of Poisoning: No toxicology reported on humans

First Aid Measures: With being not very likely, if one is sceptical of being poisoned by the substance, stop the work immediately and call a doctor. Stop further exposure to the material. Take off the clothes contacted with the substance and wash the patient with soap and water. Take the patient to a ventilated space. If the substance is swallowed, give plenty of activated charcoal.

Antidote and Necessary Information: There is no special antidote. Treatment is applied according to the symptoms.

5. FIRE FIGHTING MEASURES

Extinguisher: Pressed water, CO₂, extinguisher powder, foam, sand. Get intervene to extinguish the fire until a serious danger occurs. Wear a protective mask.

In well-ventilated areas: Face mask with combined filter (It does not protect from carbon mono oxide.)

In closed areas: Isolation device (inhalation via independent air source). Prevent extinguisher water to spread to environment.

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6. ACCIDENTAL RELEASE MEASURES:

General Information: Please use the personal protection equipment defined under Section 8.

Personal Precautions: Do not touch spilled product or contaminated surfaces. Do not eat, drink or smoke while handling spilled product.

Clean-up Methods: The poured material is collected with a liquid catcher material or suitable vacuum cleaner. Place the product into tight plastic containers and keep safely until it is disposed. Contaminated materials and surfaces should be cleaned in compliance with environmental regulations.

Additional Precautions: Refer to Section 7 for safe handling instructions. Refer to Section 8 for personal protections equipment. Refer to Section 13 for disposal.

7. HANDLING AND STORAGE

Handling : Please use the personal protection equipment specified under Section 8. Do not eat or drink while using. Prevent the contact with mouth, skin and eyes. Do not inhale. Wash your hands after using. Other security precautions are not required except of stated warnings during using the closed package. Use only in rooms, in which there is a local sucking device.

Storage : Keep in original package in cool, dry and well ventilated places. Keep away from food and animal feed items. Keep away from direct sunlight. Keep it in places that children cannot reach.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Precautions: Ensure appropriate general or local ventilation to keep the product concentration under allowed limits.

Personal Protection Equipment:

Eye : Use eye protection equipment compliant with EN 166.

Skin : Use protective clothing and appropriate gloves. Use 2 layers of clothing, if possible. Use CE marked Nitrile Rubber (min. 0.40 mm thick). Contaminated gloves should be washed. Any gloves that cannot be cleaned inside and outside should be disposed.

Respiratory : Use respiratory apparatuses compliant with EN 149:2001. Any respiratory protection apparatus should only be used for short term operations, as a part of risk minimization measures, e.g. in case of local ventilation. Comply with operation instructions and warnings of the manufacturer during use of respiratory protection apparatuses.

Hygiene Measures: Do not eat, drink or smoke while handling the product. Wash your hands each time before eating, drinking, smoking or going to the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Clear liquid

Color : Yellow, orange

Odor : Soft

Density : $0,995 \pm 0,05 \text{ g/cm}^3$ (20⁰C)

Flashing Point : 45 C

pH : 4-8 10% (20⁰C)

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10. STABILITY AND REACTIVITY

Conditions to be avoided : Extreme degrees and direct sun light
Materials to be avoided : None
Dangerous reaction : No reaction in appropriate storage and usage.
It is resistant in mentioned storage conditions.

11. TOXICOLOGICAL INFORMATION

Difenoconazole Technical Material:

Acute Oral LD₅₀ rat, 1453, mouse >2000 mg/kg.
Skin and eye Acute percutan LD₅₀ rabbit >2010 mg/kg. (not irritating to eye and skin)
Inhalation LC₅₀ (4 h) female and male rat 0 ≥3300 mg/m³ air.
NOEL (2 years) female and male rat 1.0 mg/kg b.w. daily; (1.5 years) mouse 4.7 mg/kg b.w. daily; (1 year) dog 3.4 mg/kg b.w. daily.

12. ECOLOGICAL INFORMATION

Difenoconazole Technical Material:

Birds LD₅₀ (9–11 d) mallard ducks >2150, Japanese quail >2000 mg/kg b.w.
Diet LC₅₀ (5 d) bobwhite quail 4760, mallard ducks >5000 ppm.
Fish LC₅₀ (96 hour) rainbow trout 1.1, bluegill sunfish 1.3, sheepshead minnows 1.1 mg/l.
Alg EC₅₀ (72 hour) *Scenedesmus subspicatus* 0.03 mg/l.
Bees: not Toxic for bees. ; LD₅₀ (oral) >187 µg/bee; LC₅₀ (contact) >100 µg/bee

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13. DISPOSAL CONSIDERATIONS

Waste Disposal : Do not dispose product waste together with household wastes. Waste residue should not be spilled into wastewater canals. Any product wastes should be disposed of in compliance with Hazardous Wastes Control Regulations.

Contaminated Materials : Empty containers should not be used for other products. Completely emptied and rinsed containers should be disposed in compliance with regulations. Non-clearable containers should be disposed of as hazardous materials.

14. TRANSPORTATION INFORMATION

ADR/RID/ADNR

UN-No. : 3082

Hazard Mark : 9

Packing Group : III

Product Type : UN 3082 HARMFUL SUBSTANCE TO ENVIRONMENT, SOLID, N.O.S. (INCLUDE DIFENOCONAZOLE, M-PYROL and SOLVESSO 100)

IMDG

UN-No. : 3082

Class : 9

Packing Group : III

EMS :

Marine Pollutant : Yes

Product Type : UN 3082 HARMFUL SUBSTANCE TO ENVIRONMENT, SOLID, N.O.S. (INCLUDE DIFENOCONAZOLE, M-PYROL and SOLVESSO 100)

IATA

UN-No. : 3082

Class : 9

Packing Group : III



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Product Type : UN 3082 HARMFUL SUBSTANCE TO ENVIRONMENT, SOLID, N.O.S. (INCLUDE DIFENOCONAZOLE, M-PYROL AND SOLVESSO 100)

15. REGULATORY INFORMATION

This data sheet is prepared based on regulation on preparation and distribution of safety data sheets about hazardous materials and preparations (O.G. issue no 27092 dated 26/12/2008).

Hazard Marks and Symbols:



Xn: HARMFUL



N: DANGEROUS FOR THE ENVIRONMENT

Hazardous Materials Listed on the Label

Includes Difenoconazole, m-pyrol and solvesso 100

Risk Phrases:

Physicochemical : -

R10: Flammable

Health:

R20/21: It is harmful in case of inhaled and contact with skin.

R22: it is harmful in case of swallowed.

R36/37/38: Irritating to eyes, respiratory system and skin.

Environment:

R50/53: It is too toxic for aquatic environments, may cause long-term negative effects in aquatic environments

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Safety Phrases:

- S1/2 : Lock it up and keep out of the reach of children.
S13 : Keep away from food, drink and feedstuff
S25 : Avoid contacting with eye.
S26 : In case of contact with eye, wash with plenty of water at once.
S29 : Do not empty into drains.
S 36/37/39 : Wear suitable protective clothing, gloves and eye/face protection
S43 : If fired, use pressured water, CO2, fire extinguisher powder, foam, sand.
S:46 : If swallowed, seek medical advice immediately and show this container or label.
S56 : Dispose this material and the container in dangerous and special waste collecting places.
S64 : In case of swallow, wash the mouth with water (If the patient is conscious)

Important Labeling:

Follow instructions to avoid personal and environmental risks.

16. . OTHER INFORMATION

- N : Harmful for environment
Xi : Irritant
Xn : Harmful

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All Risk Phrases under Section 2:

This data sheet is prepared based on regulation on preparation and distribution of safety data sheets about hazardous materials and preparations (O.G. issue no 27092 dated 26/12/2008).

R10: Flammable

R20/21: It is harmful in case of inhaled and contact with skin.

R22: it is harmful in case of swallowed.

R36/37: Irritating to eyes, respiratory system.

R38: Irritant to the skin

R50/53: It is too toxic for aquatic environments, may cause long-term negative effects in aquatic environments.

R61: it can be harmful to unborn child.

Date of Preparation : 15/05/2013
Date of Issue : 15/08/2013
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Renewal Date/No : -
Prepared By : Secil CANAYAKIN

This material safety data sheet is provided as a supplement to instructions of manufacturer; however it does not replace instructions of manufacturer. The information provided in this sheet only conforms to the regulatory criteria known at the time of the preparation of Safety Data Sheet. Required data are gathered in accord with "Regulation on Preparation and Distribution of Safety Data Sheets about Hazardous Materials and preparations (O.G. issue no 27092 dated 26/12/2008)". Concerned organizations and persons are invited to comply with the abovementioned regulation.