

MATERIAL SAFETY DATA SHEET

NAME OF MATERIAL/PREPARATION

REIKON

Date of Preparation	20/01/2014
Date of Issue	20/01/2014
MSDS No	FORM_MSDS_R&D_118_00
Renewal Date/No	

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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 : **REIKON**
Product Content : Azoxystrobin 200 G/L + Cyprconazole 80 G/L
Formulation Form : SC (Suspension Concentrate)

1.2 Usage of the Material/Preparation:

Fungicide

1.3 Company Identification:

Manufacturing and License Holding Company:

Company Name : AGRI SCIENCES TARIM VE ILAC UR. SAN. TIC. LTD. STI.
Address : Bekir Saydam Caddesi Pancar No: 31 Torbali / IZMIR
Telephone : +90 0232 864 13 33
Fax : +90 0232 864 16 79

1.4 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	w/w%	CAS No	EINECS/ELINCS	Hazard	R ¹	Classification
Azoxystrobin	200	131860-33-8	-	T,N	R23, R50, R53	Xn R23, N R 51-53
Cyproconazole	80	94361-06-5	-	Xn ,N	Repr. Cat. 3; R22-R50- 53,R63	Xn; Repr. Cat. 3;R63
Others	Outside classification due to absence of hazardous material.					

- ¹ R explanations are under section 16.

3. HAZARD IDENTIFICATION:



Xn: Harmful (toxic to the reproductive system Degree.3) N:Hazardous for environment

R23 : Toxic if inhaled

R51/53: Toxic for aquatic organisms, can cause long time adverse effect in aquatic environment

R63 : Possible risk to give harm on unborn child. (see Category 3)

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4. FIRST AID MEASURES:

Information on required first aid measures:

In case of exposure, person should be taken to the nearest health facility, or poison control line 114 should be called. Before calling for help, product label or MSDS should be available with you.

Ingestion:

Rinse your mouth with water. If swallowed, do not induce vomiting. Give a glass of water and immediately seek medical attention.

Eye contact:

In case of contact with eyes, rinse immediately with water. Remove contact lenses. In each case of contact with eyes, it's a sensible precaution to get medical assistance

Skin contact:

In case of skin contact, remove all contaminated clothing and wash skin with flowing water. If irritation persists, seek medical attention.

Inhalation:

Remove to fresh air. If breathing is irregular or stopped, give artificial respiration. Keep the patient warm and in a relaxing position. Get medical attention or call the Toxication Center.

Intoxication symptoms:

In tests conducted on laboratory animals demonstrated changes in symptoms.

Medical assistance :

There is no specific antidote. Treat according to symptoms.

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5. FIRE FIGHTING MEASURES

Appropriate Extinguishing Agent:

Small-scale fires: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Do not use a flat water flow since it may disperse the flames.

Large-scale fires: Use alcohol-resistant foam or water spray. Do not use a flat water flow since it may disperse the flames.

Hazards caused by flammable products:

Products contain combustible organic substances due to the gripping produces dangerous when dense black fume. (See Chapter 10). Combustion or thermal dispersal, reveals a toxic and harmful fume. Exposure to this dispersal, may be harmful to health.

Protective measures and equipment for firefighters:

Use protective clothing and impermeable breathing apparatus. Do not allow leakages to Water supply and drains. Spray water to cool the closed containers.

6. ACCIDENTAL RELEASE MEASURES:

Emergency procedures:

In case of leakage, eye and skin contact should be avoided and the substance should be prevented from leaking into the water supply.

Protection and cleaning methods and materials:

The procedure to be applied for leakage:
(1) Move everyone nearby. (2) Wear PVC gloves and full-length clothing. (3) Displace the leaking containers and minimize the leakage. (4) Reduce the leakage speed by using an absorbent material (sand, earth, etc..). (5) Fill the absorbent material into

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barrels. (6) How to dispose the absorbent material, depends on the size of the leak.

- For the amounts up to 50 L, bury on a secure land.
- For quantities greater than 50 L, get support from the manufacturer before destruction (call the emergency line below). Keep the material in a secure area until method of disposal is determined. (7) Clean the leakage area with detergent and water. Then rinse with the least possible amount of water.

7. HANDLING AND STORAGE

Precautions for safe handling:

Harmful if swallowed. Can damage the eyes. Avoid contact with eyes. When opening the container and preparing spray, use the following.

- Cotton formfitting clothes buttoned on wrists and neck
- (or equivalent)
- A washable hat
- PVC gloves up to the elbow
- Goggles

Wash hands after use. After each daily use, wash gloves, goggles and contaminated clothing.

Precautions for storage:

Maintain in the original package in a cool, dry and well-ventilated place. Do not expose to direct sunlight for a long time.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION ALWAYS READ THE DIRECTIONS IN THE LABEL AND FOLLOW THEM.

Exposure standards:	<i>Compound</i>	<i>Exposure limit</i>	<i>Value type</i>
	azoxystrobin	2.0 mg/m ³	8h TWA
	cyproconazole	0.5 mg/m ³	8h TWA
Biological limit value: No biological limit is defined.			
Engineering Controls: No special requirements.			
Personal Protection Equipment:	Harmful if swallowed. May damage the eyes. Avoid contact with eyes. When opening the container and preparing spray, use the following. <ul style="list-style-type: none"> • Cotton formfitting clothes buttoned on wrists and neck • (or equivalent) • A washable hat • PVC gloves up to the elbow • Goggles Wash hands after use. After each daily use, wash gloves, goggles and contaminated clothing.		

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: Suspension liquid
Color	: White-Beige
Density	: 1,07 ± 0, 05 g/cm ³ (20 ⁰ C)
pH	: 5 – 8 at 10% w/v
Viscosity	: 1000-5000mpas (@20 C)

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10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions.
Conditions to be avoided:	There is no known case.
Incompatible substances:	There is no known substance.
Hazardous dissolution products:	Combustion or thermal dissolution causes the release of toxic and hazardous fumes.
Hazardous reactions:	There is no known reaction. Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Various health effects of the exposures that may occur

Acute:

Toxicity when taken orally:

HARMFUL According to tests conducted on rats, this product is harmful in pure form at following dosage .. LD50 > 2,000 mg / kg (male rat) LD50 > 500 - <2,000 mg / kg (female rats)

Toxicity in case skin contact:

LOW TOXIC RATE According to tests conducted on rats, the product is toxic at low rates in case contact with the skin in pure form at the following doses.

LD50 > 5,000 mg/kg

Toxicity when taken by inhalation :

LOW TOXIC RATE, According to tests carried out on rats, this product is not harmful when inhaled in pure form in the following proportions.

LC50 > 2.58 mg/l, 4 h

Skin irritation:

VERY LOW IRRITATION

Eye irritation:

VERY LOW IRRITATION

Sensitivity:

DO NOT CAUSE SENSITIVITY

Chronic:

Azoxystrobin was tested in laboratory environment intensively on mammals. Mutagenic, carcinogenic, teratogenic, neurotoxic and reproductive effects were observed.

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Cyproconazole, was tested in laboratory environment intensively on mammals. Mutagenic, carcinogenic, neurotoxic effects were observed. In overdose tests carried out on rats, pregnancy and fetal toxicity have been observed. When the product is used within the rates exposed on studies, no significant adverse effect is expected.

12. ECOLOGICAL INFORMATION

Moderately toxic to fish:

Oncorhynchus mykiss (rainbow trout):

LC50 = 1.8 mg/L, 96 hr

Moderately toxic to aquatic vertebrates:

Daphnia magna (su biti):

EC50 = 1.2 mg/L, 48 hr

Moderately toxic to algae:

Scenedesmus subspicatus (green algae):

EbC50 = 0.478 mg/L, 72 hr; ErC50 = 3.87 mg/L, 72 hr

Persistence and dissolution:

Azoxystrobin:

Water stability:

Dissolution half life: More than 12 days at 25 °C.

Azoksitrobin is stable in water.

Soil stability:

Dissolution half-life: 59.5 days. Azoksitrobin is not stable in soil.

Cyproconazole:

Stability in water: Dissolution half life: 5 days at 20 ° C. Cyproconazole is not stable in water. *Soil stability:* Dissolution half-life: 100 to 124 days. Cyproconazole is not stable in soil.

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Mobility

The mobility in soil for Azoxystrobin is at low to very high grade. The mobility in soil for Cyproconazole is at low to moderate grade.

Environmental fate (exposure): Bioaccumulative potential:

Involves in organic molecules. Azoxystrobin has moderate bioaccumulative potential.. Cyproconazole does not bioaccumulate.

13. DISPOSAL INFORMATION

Disposal :

Rinse the containers with pressure water if possible before disposal. Rinse the spray tube. Do not dispose the chemicals in pure-state in the working area. For recycling, bring the clean containers to recycling centers or to the collection centers along with their covers. If recycling will not be made, however, render the empty containers unoperational and bury them.

Issues to be considered for disposal by burning or burying:

Not applied.

14. TRANSPORTATION INFORMATION

ADR/RID/ADNR

UN-No. : 3082

Hazard Mark : 9

Packing Group : III

Product type : UN 3082 MATERIAL HARMFUL FOR ENVIRONMENT, LIQUID, N.O.S (INCLUDE AZOXYSTROBIN AND CYPROCONAZOLE)



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IMDG

UN-No. : 3082

Hazard Mark : 9

Packing Group : III

EMS :

Marine Pollutant : Yes

Product type : UN 3082 MATERIAL HARMFUL FOR ENVIRONMENT, LIQUID, N.O.S (INCLUDE AZOXYSTROBIN AND CYPROCONAZOLE)

IATA

UN-No. : 3082

Hazard Mark : 9

Packing Group : III

Product type : UN 3082 MATERIAL HARMFUL FOR ENVIRONMENT, LIQUID, N.O.S (INCLUDE AZOXYSTROBIN AND CYPROCONAZOLE)

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: Hazardous for environment

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Risk Phrases:

Physicochemical:-

Health:

R23 : Toxic if inhaled

R63 : Possible risk to give harm on unborn child. (see Cetagory 3)

Environment

R51/53: Toxic for aquatic organisms, can cause long time adverse effect in aquatic environment

Safety Phrases:

S1/2: Lock it up and keep out of the reach of children.

S13: Keep away from foods, drinks and feeds.

S29: Do not pour to sewage system.

S37: Wear appropriate gloves.

S39: Wear appropriate protective glass/mask.

S45: If you feel bad or in case of accident, call a doctor (if possible, show the label)

S46: Contact a doctor if swallowed, show the container or label.

S56: Dispose of this material and the container in dangerous and special waste collecting places.

S63: In case of inhalation: Take the patient to fresh air and provide him/her resting

Important Labeling:

Follow instructions to avoid personal and environmental risks.

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16. OTHER INFORMATION

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Prepared By : Zeynep Coban

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.