

MATERIAL SAFETY DATA SHEET

NAME OF MATERIAL/PREPARATION

QUANTAS

Date of Preparation	25/07/2012
Date of Issue	25/07/2012
MSDS No	FORM_MSDS_R&D_073_00
Renewal Date/No	

Page 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 : QUANTAS
Product Content : Metalaxyl+Mancozeb 8+64 %
Formulation Form : WP (WETTABLE POWDER)
Metalaxyl:
Cas No : 57837-19-1
EC No : 260-979-7
FRAC Class : 4, A1 phenylamide: acylalanine

Mancozeb
Cas No : 8018- 1-7
EC No : 006-076-00-1
FRAC Class : M3, M multi-site

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.

MATERIAL SAFETY DATA SHEET

NAME OF MATERIAL/PREPARATION	QUANTAS
-------------------------------------	----------------

Date of Preparation	25/07/2012
Date of Issue	25/07/2012
MSDS No	FORM_MSDS_R&D_073_00
Renewal Date/No	

Page No: 2/10

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).

2. COMPOSITION AND INFORMATION ON INGREDIENTS:

Material	%	CAS No	EINECS/ ELINCS	Hazard	R ¹	Classification
Metalaxyl	8	57837-19-1	260-979-7	Xn; N	R22, R43, R52/53	Xi; R43, N;R52/53
Mancozeb	64	8018-01-7	006-076-00-1	Xi,N	R37,R43,R63,R50	Xn;R37, R43,R63, N;R50
Others*	-					

- ¹ R explanations are under section 16.
- * Outside classification due to absence of hazardous material.

3. HAZARD IDENTIFICATION:



Xn: HARMFUL



N: DANGEROUS FOR THE ENVIRONMENT

R37 : Irritating to respiratory system

R43 : May cause sensitisation by skin contact

R63 : Possible risk of harm to the unborn child

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The product is classified 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).

MATERIAL SAFETY DATA SHEET

NAME OF MATERIAL/PREPARATION

QUANTAS

Date of Preparation	25/07/2012
Date of Issue	25/07/2012
MSDS No	FORM_MSDS_R&D_073_00
Renewal Date/No	

Page No: 3/10

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).

4. FIRST AID MEASURES:

USER SAFETY: Please wash your face and hands before eating, drink or smoking anything. If you feel unwell immediately stop the work and take first aid measures. After the work is completed thoroughly clean the protective equipment, and wash part of body which came into contact with the product.

SYMPTOMS OF POISONING: No poisoning case was observed in humans.

FIRST AID MEASURES: In case you or another feel unwell or poisoned immediately stop the work. Avoid further contact with the product. Any coveralls, clothes etc. which came into contact with the pesticide should be removed and any parts of the body which came into contact with the pesticide should be washed with plenty of soap and water. In case there was any pesticide contact with eyes, wash the eyes with plenty of slowly flowing clean water for 15 minutes. If necessary contact a physician. Or take the patient to a physician and show this container or label. Do not give anything orally to the patient in case the patient is unconscious.

ANTIDOTE AND TREATMENT: There is no special antidote for the product. It should be treated in accord with symptoms.

5. FIRE FIGHTING MEASURES

Personal Protective Equipment: Do not inhale the fumes generated during the explosion or fire. If available, use air-independent respiratory mask during the fire.

Dangers: Consider the dangerous fumes such as hydrogen chloride or carbon monoxide generated during the fire.

Extinguishers: Foam, CO₂, fire extinguishing powder.

Other Details: Take the product away from fire place. Cool the containers with water. If available, use earth or sand after using fire extinguishing water.

MATERIAL SAFETY DATA SHEET

NAME OF MATERIAL/PREPARATION

QUANTAS

Date of Preparation	25/07/2012
Date of Issue	25/07/2012
MSDS No	FORM_MSDS_R&D_073_00
Renewal Date/No	

Page No: 4/10

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).

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 spilled material should be collected with a liquid absorbent material (for instance; absorbent sand, sawdust, chemical binder). Place the product into tightly sealed plastic containers and store it in a safe place until it is disposed. Contaminated materials and surfaces should be cleaned in compliance with environmental regulations. The spilled material should be prevented from reaching sewage and running water. If waste is mixed with water, the authorities must be notified.

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 : Keep away from acids. Please use the personal protection equipment specified under Section 8. Do not eat or drink while using. Prevent contact with mouth, skin and eyes. Do not inhale. Thoroughly wash your hands after using. Other security precautions are not required other than warnings stated regarding use of closed package. Only use in closed spaces where there is a local aspiration device

Storage : Keep in original package in a cool, dry and well ventilated place. Keep away from food and animal feed items. Keep away from direct sunlight. Protect against freezing. Keep it away from the reach of children..

MATERIAL SAFETY DATA SHEET

NAME OF MATERIAL/PREPARATION

QUANTAS

Date of Preparation	25/07/2012
Date of Issue	25/07/2012
MSDS No	FORM_MSDS_R&D_073_00
Renewal Date/No	

Page No: 5/10

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).

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 : Solid, powder

Color : Yellow

Odor : Slightly characteristic

pH : 5-9 %10 (20°C)

Solubility in water : Disperse

MATERIAL SAFETY DATA SHEET

NAME OF MATERIAL/PREPARATION

QUANTAS

Date of Preparation	25/07/2012
Date of Issue	25/07/2012
MSDS No	FORM_MSDS_R&D_073_00
Renewal Date/No	

Page No: 6/10

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).

10. STABILITY AND REACTIVITY

Stability : Stable under normal use and storage conditions.

Dangerous Polymerization : None

Conditions to be avoided : Heat and Light.

Dangerous decomposition products: Toxic and irritant fumes may occur as a result of fire or thermal degradation.

11. TOXICOLOGICAL INFORMATION

Metalaxyl Technical Material:

Acute Oral LD₅₀ female and male rat 633, mouse 788, rabbit 697 mg/kg

Eye and skin Acute percutaneous LD₅₀ female and male rat >3100 mg/kg. Slightly irritant to eyes; not irritant to skin (rabbit)

Inhalation LC₅₀ (4 h) female and male rat >3600 mg/l.

NOEL (6 years) dog 0.08 mg/kg b.w. daily (2002,2004).

ADI/RfD (JMPR) 0.08 mg/kg b.w. [2002, 2004]

Toxicity class WHO (a.i) III

Mancozeb Technical Material:

Acute Oral LD₅₀ female and male rat >500 mg/kg

Eye and skin Acute percutaneous LD₅₀ female and male rat >10000 mg/kg, rabbit >5000 mg/kg. (not irritant to skin (rabbit), eye irritation value category III (EPA Classification)

Inhalation LC₅₀ (4 h) female and male rat >5,14 mg/L.

NOEL chronic NOAEL (2 years) female and male rat 4,8 mg/kg b.w daily.

Ethylenethiourea chronic NOAEL (2 years) female and male rat 0,37 mg/kg b.w daily.

ADI/RfD (JMPR) 0.03 mg/kg b.w. (Group Name; with maneb, metira ve zineb);

ethylenethiourea 0.004 mg/kg b.w. (1993); (EC) 0.05 mg/kg b.w. (2005); (EPA) aRfD 1.3, cRfD 0.05 mg/kg b.w. (2005); ethylenethiourea aRfD 0.005, cRfD 0.0002 mg/kg b.w. (1992).

Toxicity class WHO (a.i) U; EPA (formulation) IV

MATERIAL SAFETY DATA SHEET

NAME OF MATERIAL/PREPARATION

QUANTAS

Date of Preparation	25/07/2012
Date of Issue	25/07/2012
MSDS No	FORM_MSDS_R&D_073_00
Renewal Date/No	

Page No: 7/10

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).

12. ECOLOGICAL INFORMATION

Metalaxyl Technical Material:

Birds LD₅₀ Japanese quail (7 days) 923, mallard ducks (8 days) 1466 mg/kg.
LC₅₀ (8 days) Japanese quail, bobwhite quail and mallard ducks >10000 mg/kg.
Fish LC₅₀ (96 hours) rainbow trout, carp and bluegill sunfish >100 mg/l
Daphnia LC₅₀ (48 h) >28 mg/l.
Algae *Scenedesmus subspicatus* IC₅₀ 33 mg/l
Other aquatic species EC₅₀ (96 h) mysid shrimps (*Mysidopsis bahia*) 25, eastern oysters (*Crassostrea virginica*) 4.6 mg/l.
Bee: Not toxic for bees. LD₅₀ (48 h) (contact) >200 µg/bee >269.3 µg /bee

Mancozeb Technical Material:

Birds Acute Oral LD₅₀ (10 d) >5500 mg/kg (mallard ducks), quail 5500 mg/kg (Japanese quail), English sparrow >1290 mg/kg (*Passer domesticus*), European mynah >2400 mg/kg (*Sturnus vulgaris*).
Acute Dietary LC₅₀ (8 d) quail and duck >5200 mg/kg (mallard ducks and bobwhite quail) diet.
Chronic reproduction NOEL duck (mallard duck) 125 mg/kg diet, quail 300 mg/kg diet (bobwhite quail)
Fish: LC₅₀ (96 hours) rainbow trout 1,0 mg/kg, bluegill sunfish >3,6 mg/l.

Daphnia : EC₅₀ (48 h) 3,8 mg/l
Algae : EC₅₀ (120 h) 0,044 mg/l (*Selenastrum capricornutum*)
Bee : LD₅₀ (oral) >209 ug/bee; (contact) >400 ug/bee

MATERIAL SAFETY DATA SHEET

NAME OF MATERIAL/PREPARATION	QUANTAS
-------------------------------------	----------------

Date of Preparation	25/07/2012
Date of Issue	25/07/2012
MSDS No	FORM_MSDS_R&D_073_00
Renewal Date/No	

Page No: 8/10

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).

13. DISPOSAL INFORMATION

Product : Do not dispose it 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. : 3077

Hazard Mark : 9

Packing Group : III

Product type : UN 3077 DOES NOT INCLUDE DANGEROUS MATERIAL, SOLID, N.O.S (WASTES) TO ENVIRONMENT. (INCLUDES METALAXYL AND MANCOZEB)



IMDG

UN-No. : 3077

Class : 9

Packing Group : III

Marine Pollutant : Yes

Product Type : UN 3077 DOES NOT INCLUDE DANGEROUS MATERIAL, SOLID, N.O.S (WASTES) TO ENVIRONMENT. (INCLUDES METALAXYL AND MANCOZEB)

IATA

UN-No. : 3077

Class : 9

Packing Group : III

Product Type : UN 3077 DOES NOT INCLUDE DANGEROUS MATERIAL, SOLID, N.O.S (WASTES) TO ENVIRONMENT. (INCLUDES METALAXYL AND MANCOZEB)

MATERIAL SAFETY DATA SHEET

NAME OF MATERIAL/PREPARATION

QUANTAS

Date of Preparation	25/07/2012
Date of Issue	25/07/2012
MSDS No	FORM_MSDS_R&D_073_00
Renewal Date/No	

Page No: 9/10

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).

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 Metalaxyl and Manzoceb.

Risk Phrases:

Health :

- R37 : Irritating to respiratory system
- R43 : May cause sensitisation by skin contact
- R63 : Possible risk of harm to the unborn child

Environment :

- R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:

- S1/2 : Keep locked up and out of the reach of children
- S24 : Avoid contact with skin.
- S36/37 : Wear suitable protective clothing and gloves
- S46 : If swallowed, seek medical advice immediately and show this container or label
- S29 : Do not empty into drains
- S56 : Dispose of this material and its container at hazardous or special waste collection point

MATERIAL SAFETY DATA SHEET

NAME OF MATERIAL/PREPARATION

QUANTAS

Date of Preparation	25/07/2012
Date of Issue	25/07/2012
MSDS No	FORM_MSDS_R&D_073_00
Renewal Date/No	

Page No: 10/10

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).

S61 : Avoid release to the environment. Refer to special instructions/safety data sheet.

S64 : If swallowed, rinse mouth with water (only if the person is conscious)

Important Labeling:

Follow instructions to avoid personal and environmental risks.

16. OTHER INFORMATION

N : Harmful for environment

Xn : Harmful

Xi : Irritant

All Risk Phrases under Section 2:

R22 : Harmful if swallowed

R37 : Irritating to respiratory system

R43 : May cause sensitisation by skin contact

R48/22 : Harmful: danger of serious damage to health by prolonged exposure if swallowed

R63 : Possible risk of harm to the unborn child

R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.