

PRODUCT SAFETY DATA SHEET

SUBSTANCE / PREPARATION NAME

CENTRIC

Date of preparation	26/05/2011
Release Date	03/06/2011
MSDS No	FORM_MSDS_R&D_009_00
Renewal Date/No	

Page No: 1/10

This form is based on SAFETY DATA FORMS AND REGULATION ABOUT THE PREPARATION AND DISTRIBUTION OF HAZARDOUS SUBSTANCES (dated 26/12/2008 and 27092 numbered).

1. DEFINITION OF SUBSTANCE/PREPARATION AND COMPANY/ BUSINESS OWNER:

1.1 Substance/ Presentation Of The Preparation:

Product Name : **CENTRIC**
Content : CYMOXANIL 5%, MANCOZEB 45%
Formulation Type : WP (Wettable Powder)

Cymoxanil

Cas No : 57966-95-7
EC No : 261-043-0
FRAC Class :27, U cyanoacetamide oxime

Mancozeb

Cas No : 8018-01-7 (old 8065-67-6)
EC No : 006-076-00-1
FRAC Class : M3, M multi-site: alkylenebis(dithiocarbamate)

1.2 Usage of Substance/Preparation:

Fungicide

1.3 Company Presentation of the Company:

Manufacturer and Licensee 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

1.4 Emergency Telephone:

Please call +90 0232 864 13 33 in an emergency.

PRODUCT SAFETY DATA SHEET

SUBSTANCE / PREPARATION NAME	CENTRIC
-------------------------------------	----------------

Date of preparation	26/05/2011
Release Date	03/06/2011
MSDS No	FORM_MSDS_R&D_009_00
Renewal Date/No	

Page No: 2/10

This form is based on SAFETY DATA FORMS AND REGULATION ABOUT THE PREPARATION AND DISTRIBUTION OF HAZARDOUS SUBSTANCES (dated 26/12/2008 and 27092 numbered).

2. INFORMATION ABOUT THE CONTENT/COMPOSITION :

Substance	%	CAS No	EINECS/ELINCS	Hazard	R ¹	Classification
Cymoxanil	5	57966-95-7	261-043-0	Xn; N	R22, R43, R50, R53	Xi; R43
Mancozeb	45	8018-01-7	006-076-00-1	Xi, Xn Repr. Cat. 3, N	R37, R43, R63, R50	Xi; R37, R43, Xn Repr. Cat. 3; R63, N;R50

- Descriptions about ¹R are given in chapter 16
- It's out of classification in that does not contain dangerous substances.

3. IDENTIFICATION OF HAZARDS:



Xn: (Repr. Cat. 3) Toxic to the reproductive system N: dangerous for the environment

- R37 : Irritating to respiratory system.
 R43 : May cause sensitization by skin contact.
 R63 : Possible risk of harm to the unborn child.
 R50 : Very toxic to aquatic organisms.

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PRODUCT SAFETY DATA SHEET

SUBSTANCE / PREPARATION NAME

CENTRIC

Date of preparation	26/05/2011
Release Date	03/06/2011
MSDS No	FORM_MSDS_R&D_009_00
Renewal Date/No	

Page No: 3/10

This form is based on SAFETY DATA FORMS AND REGULATION ABOUT THE PREPARATION AND DISTRIBUTION OF HAZARDOUS SUBSTANCES (dated 26/12/2008 and 27092 numbered).

4. FIRST AID PRECAUTIONS:

Symptoms of poisoning: headache, nausea, fatigue and sweating

First-aid measures: If medication has been inhaled in powder form, Remove patient to fresh air. Call a doctor and take it along with the drug label. drug if swallowed drug, patients induced vomiting, infected eyes or skin should be washed with soap and water.

Antidote and Required Information: There is no a specific antidote, are treated symptomatically.

5. FIRE-FIGHTING MEASURES

Required Personal Protective Equipment in Aid: Do not breathe fumes of explosion and fire. If possible, use self contained breathing apparatus during fire.

Hazards: Formation of dangerous gases is taken into account in case of fire.

Fire Extinguishers: Foam, carbon dioxide, extinguishing powder.

Other Information: Remove the product from fire areas, cool containers with water. If possible, use sand or earth after fire fighting water.

6. ACCIDENTAL RELEASE PRECAUTIONS:

General Information: Use personal protection devices, specified in section 8.

Personal Alerts: Avoid contact with spilled product or contaminated areas. Do not eat, drink or smoke when dealing with spilled product.

The Cleaning Process: The product is collected with liquid retaining material (such as peat, sawdust, chemical binder. Substance collected into hard plastic containers and stored in a secure way until to destroy. Contaminated substances, cleaned according to environment and ground instructions. The product flowing to drains or sewers is blocked. If waste is mixed with water, it is reported to the authorities.

Additional Precautions: Look at section 7 for safe use. Look at section 8 for personal protective equipment. Look at section 13 for disposal.

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SUBSTANCE / PREPARATION NAME

CENTRIC

Date of preparation	26/05/2011
Release Date	03/06/2011
MSDS No	FORM_MSDS_R&D_009_00
Renewal Date/No	

Page No: 4/10

This form is based on SAFETY DATA FORMS AND REGULATION ABOUT THE PREPARATION AND DISTRIBUTION OF HAZARDOUS SUBSTANCES (dated 26/12/2008 and 27092 numbered).

7. HANDLING AND STORAGE

Handling : Use personal protective equipments specified in section 8. Do not eat or drink anything during the usage. Avoid contact with skin and eyes. Do not breathe it. Wash your hands after usage. It does not need any other security precautions other than instructions on it. Use only the rooms with appropriate exhaust ventilation.

Storage : Store in original container in a cool, dry and well-ventilated place. Keep away from foods, drinks and animal feedstuffs. Protect from direct sunlight. Protect against freezing, do not put to reach area of children.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Engineering Precautions: Keep the substance concentration below the allowable limits by providing the appropriate general or regional ventilation.

Personal Protective Equipment:

Eye : Use safety glasses according to EN 166.

Skin : Use protective clothing and suitable gloves. If possible, use 2 layers of clothing. Use CE marked Nitrile rubber gloves (min 0,40 mm thick). Wash contaminated gloves. Dispose of the not cleanable gloves.

Respiration: Use breathing apparatus according to EN 149:2001. Breathing apparatus only used in short-term works to reduce the risk, for example, in local ventilations. Warning instructions prepared by manufacturers about respiratory protection apparatus must be followed.

Hygiene Precautions: Do not eat, drink or smoke during usage. Wash your hands every time before going to the toilet, eating, drinking and smoking.

PRODUCT SAFETY DATA SHEET

SUBSTANCE / PREPARATION NAME

CENTRIC

Date of preparation	26/05/2011
Release Date	03/06/2011
MSDS No	FORM_MSDS_R&D_009_00
Renewal Date/No	

Page No: 5/10

This form is based on SAFETY DATA FORMS AND REGULATION ABOUT THE PREPARATION AND DISTRIBUTION OF HAZARDOUS SUBSTANCES (dated 26/12/2008 and 27092 numbered).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Solid, powder
Color : Begie - Yellow
Odour : Light Characteristic
pH : 5.0-9.0 1% (20⁰C)
Solubility in water : Dispers

10. STABILITY AND REACTION

Conditions to avoid : Extreme temperatures and direct sunlight.
Substances to avoid : It is possible to occur carbondisulfid and hydro sulfur with acids.
Dangerous decomposition products: CO, nitrogen oxides, hydrogen chloride, the organic compounds, such as aromatic compounds.

11. TOXICOLOGICAL INFORMATION

Cymoxanil Technical Substance:

Acut Oral LD₅₀ rat 760 mg/kg LD₅₀ female rat 1200 mg/kg

Skin and Eyes Acute percutan LD₅₀ rabbit >2000 mg/kg (. it is not irritating for skin - rabbit)

Respiration LC₅₀ (4h) rat >5,06 mg/L

NOEL (2y) rat 4,1 mg/kg; female rat 5,4 mg/kg; male rat 4,2 mg/kg; female rat 5,8 mg/kg; dog 3,0 mg/kg b.w. daily.

ADI/RfD (EC) 0.013 mg/kg b.w. [2008]; (BfR) 0.03 mg/kg b.w. [2006]; (EPA) RfD 0.013 mg/kg [1998].

Toxicity Class: WHO (ai) III; EPA (formulation) III

PRODUCT SAFETY DATA SHEET

SUBSTANCE / PREPARATION NAME

CENTRIC

Date of preparation	26/05/2011
Release Date	03/06/2011
MSDS No	FORM_MSDS_R&D_009_00
Renewal Date/No	

Page No: 6/10

This form is based on SAFETY DATA FORMS AND REGULATION ABOUT THE PREPARATION AND DISTRIBUTION OF HAZARDOUS SUBSTANCES (dated 26/12/2008 and 27092 numbered).

Mancozeb Technical Substance:

Acut Oral LD₅₀ rat > 500 mg/kg

Skin and Eyes Acute percutan LD₅₀ rat >10000 mg/kg, rabbit >5000 mg/kg (It is not a skin irritant in rabbits, eye irritation value of the category III (EPA Classification))

Respiration LC₅₀ (4h) rat >5,14 mg/L

NOEL Chronic NOAEL (2y), rat 4.8 mg / kg b.w. daily. Ethylenethiourea chronic NOAEL (2 y) rats 0.37 mg / kg bw daily. ADI / RfD (JMPR) 0.03 mg / kg b.w. (Group Name, with maneb, metiram and zineb) ethylenethiourea 0004 mg / kg bw [1993]; (EC) 0.05 mg / kg b.w. [2005]; (EPA) aRfD 1.3, cRfD 0.05 mg / kg b.w. [2005]; ethylenethiourea aRfD 0005, cRfD 0.0002 mg / kg bw [1992].

Toxicity Class: WHO (ai) III; EPA (formulation) III

12. ECOLOGICAL INFORMATION

Cymoxanil Technical Substance:

Birds : Acut Oral LD₅₀ >2250 mg/kg bobwhite quail and mallard ducks, Dietary LC₅₀ (8 days) bobwhite quail ve mallard ducks)>5620 mg/kg diet

Fish : LC₅₀ (96 hours) rainbow trout 61 mg/l, , bluegill sunfish 29 mg/L, common carp 91mg/L, sheepshead minnows >47.5 mg/l.

Daphnia LC₅₀ (48 hours) 27 mg/L.

Alg EC₅₀ (5 gün) 1,21 mg/l Selenastrum capricornutum, EC₅₀ 231 ppb Anabaena flos-aquae.

Bee : It is not toxic to bees.LD₅₀ (48 hours, effect) > 25 µg /bee, LC₅₀ (48 hours, oral)>1000 ppm.

Worm : LD₅₀ (14 days) >2208 mg /kg soil.

PRODUCT SAFETY DATA SHEET

SUBSTANCE / PREPARATION NAME

CENTRIC

Date of preparation	26/05/2011
Release Date	03/06/2011
MSDS No	FORM_MSDS_R&D_009_00
Renewal Date/No	

Page No: 7/10

This form is based on SAFETY DATA FORMS AND REGULATION ABOUT THE PREPARATION AND DISTRIBUTION OF HAZARDOUS SUBSTANCES (dated 26/12/2008 and 27092 numbered).

Mancozeb Technical Substance:

Birds : Acute oral LD₅₀ (10 d) >5500 mg/kg (mallard ducks), 5500 mg/kg (Japanese quail), >1290 mg/kg (*Passer domesticus*), >2400 mg/kg (*Sturnus vulgaris*).

Acut Dietary LC₅₀ (8 days) > 5200 mg/kg mallard ducks ve bobwhite quail diyet.

mallard ducks 125 mg/kg diyet, 300 mg/kg diyet bobwhite quail

Fish : LC₅₀ (96 hours) rainbow trout 1, 0 mg/l, > 3, 6 mg/l bluegill sunfish.

Daphnia : EC₅₀ (48 hours) 3,8 mg/l

Alg : EC₅₀ (120 hours) 0,044 mg/l *Selenastrum capricornutum*

Bee : LD₅₀ (oral) > 209 µg/bee; (contact) >400 µg/bee

Solucan : LC₅₀ (14 days) > 1000 mg/kg soil

13. DISPOSAL INFORMATION

Product : Wastes should dispose of with household waste. The remaining amount of waste must not poured to sewage canal. Hazardous waste should be disposed of according to control regulation.

Contaminated Packing : Empty containers should be used for other products. Completely emptied and shaken containers must properly disposed. Uncontaminated packaging should be disposed of as hazardous waste.

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SUBSTANCE / PREPARATION NAME	CENTRIC
-------------------------------------	----------------

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Release Date	03/06/2011
MSDS No	FORM_MSDS_R&D_009_00
Renewal Date/No	

Page No: 8/10

This form is based on SAFETY DATA FORMS AND REGULATION ABOUT THE PREPARATION AND DISTRIBUTION OF HAZARDOUS SUBSTANCES (dated 26/12/2008 and 27092 numbered).

14. TRANSPORT INFORMATION

ADR/RID/ADNR

UN-No. : 3077

Danger Signal : 9

Packaging Group : III

Property of the product : UN 3077 Environmental hazardous substance, sold N.O.S.
(waste free) (Containing Cymoxanil and Mancozeb)

IMDG

UN-No. : 3077

Class : 9

Packaging Group : III

See Pollutant : -

Property of the product : UN 3077 Environmental hazardous substance, sold N.O.S.
(waste free) (Containing Cymoxanil and Mancozeb)

IATA

UN-No. : 3077

Class : 9

Packaging Group : III

Property of the product : UN 3077 Environmental hazardous substance, sold N.O.S.
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SUBSTANCE / PREPARATION NAME

CENTRIC

Date of preparation	26/05/2011
Release Date	03/06/2011
MSDS No	FORM_MSDS_R&D_009_00
Renewal Date/No	

Page No: 9/10

This form is based on SAFETY DATA FORMS AND REGULATION ABOUT THE PREPARATION AND DISTRIBUTION OF HAZARDOUS SUBSTANCES (dated 26/12/2008 and 27092 numbered).

15. REGULATORY INFORMATION

This form is based on SAFETY DATA FORMS AND REGULATION ABOUT THE PREPARATION AND DISTRIBUTION OF HAZARDOUS SUBSTANCES (dated 26/12/2008 and 27092 numbered).

Hazard Signal and Symbol:



Xn: (Repr. Cat. 3) Toxic to the reproductive system

N: Dangerous for the environment

Hazardous Substances Found On The Label:

Containing Cymoxanil and Mancozeb

Risk Phrases

Physicochemical :-

Health:

- R 37 - Irritating the respiratory system.
- R 43 - May cause sensitization by skin contact.
- R63 - Possible risk of harm to the unborn child.

Environment:

- R50 - Very toxic for aquatic organisms.

Safety Phrases:

- S 24 - Avoid contact with skin.
- S 29 - Do not empty into drains.
- S36/37 - Use suitable protective clothing, gloves and protective goggles/mask.
- S 46 - If swallowed, seek medical advice immediately, show the container or label..
- S56 - Dispose the material at hazardous or special waste collection point.

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SUBSTANCE / PREPARATION NAME

CENTRIC

Date of preparation	26/05/2011
Release Date	03/06/2011
MSDS No	FORM_MSDS_R&D_009_00
Renewal Date/No	

Page No: 10/10

This form is based on SAFETY DATA FORMS AND REGULATION ABOUT THE PREPARATION AND DISTRIBUTION OF HAZARDOUS SUBSTANCES (dated 26/12/2008 and 27092 numbered).

S 61 - Avoid release from the environment. Refer to special instructions / Safety Data Sheet.

Important Labeling :

To avoid from risks to man and environment, comply with the instruction of use.

Additional Information:

Cymoxanil: WHO (a.i.) III; EPA (formulation) III

Mancozeb: WHO (a.i.) U; EPA (formulation) IV

16. OTHER INFORMATION

N : Dangerous for the environment

Xn : Harmful

Xi : Irritant

Repr. Cat. 3 : **Toxic to the reproductive system**

Risk phrases mentioned in Section 2:

R22 : Harmful: If swallowed,

R43 : May cause sensitization by skin contact.

R37 : Irritating to respiratory system.

R50 : Very toxic to aquatic organisms.

R53 : May cause long-term adverse effects in aquatic environments.

R63 : Possible risk of harm to the unborn child.

This security information form is additional to manufacturer firm's instructions, however does not replace with instructions. This form contains regulation criteria for preparation of security form preparation. This form is based on safety data forms and regulation about the preparation and distribution of hazardous substances (dated 26/12/2008 and 27092 numbered). Please, the relevant institutions and individuals act according to this regulation.