

MATERIAL SAFETY DATA SHEET

NAME OF MATERIAL/PREPARATION

REMUS

Date of Preparation	11/06/2013
Date of Issue	11/06/2013
MSDS No	FORM_MSDS_R&D_101_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 : REMUS
Product Content : CHLOROTHALONİL 75%
Formulation Form : WP (Wettable Powder)
Cas No : 1897-45-6
EC No : 217-588-1
FRAC : M5, M multi-site: chloronitrile

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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HAZARDOUS MATERIALS AND PREPARATIONS (O.G. issue no 27092 dated 26/12/2008).

2. COMPOSITION AND INFORMATION ON INGREDIENTS:

Material	g/Kg	CAS No	EINECS/ELINCS	Hazard	R ¹	Classification
Chlorothalonil	750	1897-45-6	217-588-1	T ⁺ , N	R26, R37, R40, R41, R43, R50/53	T ⁺ ; R26, R37, R40, R41, R43, N; R50/53
Others*	Outside classification due to absence of hazardous material.					

- ¹ R explanations are under section 16.

3. HAZARD IDENTIFICATION:



T⁺: Too Toxic

N: DANGEROUS FOR THE ENVIRONMENT

R26: Too toxic if inhaled.

R37: It irritates respiratory system.

R40: Limited proof for cancerogenic effect.

R41: Serious harm risk on eye.

R43: It may cause sensitivity in case of contact with skin.

R50/53: Too toxic for aquatic organisms and may cause long-term adverse effects in the aquatic environment.

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4. FIRST AID MEASURES:

Poisoning indicators: It irritates eye. In case of contact with skin, it may cause allergic side effects such as redness and light irritation on bronchus. It does not cause a permanent mark.

First Aid Measures: Take the precaution stated below in case of poisoning and call a doctor. Take the medicine, package and label. If contaminated eye, wash with plenty of water for at least 15 minutes. Call a doctor.

In case of contact with skin, take off the contaminated clothes and wash the contaminated part of body with warm water and soap. Call a doctor in case of irritation and sensitivity.

In case of inhale, take the patient to fresh air. Call a doctor. If swallowed, do not puke the patient. Call a doctor immediately.

Antidote and Necessary Information: There is no specific antidote. The 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.

During the fire, take the hydrogen chloride, hydrogen cyanide, carbon monoxide and nitrogen oxide gases into account.

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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 dust holder device or 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 : Keep away from acids. 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, drink 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 : Powder
Color : White-beige
odor : Light Characteristic
pH : 5-9 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

Chlorothalonil Technical Material:

Acute oral LD₅₀ rat >5000 mg/kg.

Eye and skin Acute percutaneous LD₅₀ albino rabbit and rat >5000 mg/kg.

Inhalation LC₅₀ (1 hour) rat 0.52 mg/l air; (4 hours) rat 0.10 mg/l air

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

12. ECOLOGICAL INFORMATION

Chlorothalonil Technical Material:

Bird acute oral LD₅₀ bobwhite quail >2000 mg/kg b.w.

Diet LC₅₀ (5 days) mallard ducks and bobwhite quail >10 000 mg/kg diet.

Fish acute LC₅₀ (96 hours, static) rainbow trout 39, fathead minnow 23, bluegill sunfish 59 µg/l.

Algae EC₅₀ (120 hours) *Selenastrum capricornutum* 210 µg/l; EC₅₀ (72 h) for *Navicula pelliculosa* 5.1 µg/l.

Api LD₅₀ honey bee (oral) >63 µg/bee; (contact) >101 µg/bee.

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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.

TRANSPORTATION INFORMATION

ADR/RID/ADNR

UN-No. : 3077

Hazard Mark: 9

Packing Group : III

Product type : UN 3077 MATERIAL HARMFUL FOR ENVIRONMENT, SOLID, N.O.S. (NOT INCLUDE WASTE)(CHLOROTHALONİL MIXTURE)

IMDG

UN-No. : 3077

Class : 9

Packing Group : III

Marine Pollutant : Yes

Product Type : UN 3077 MATERIAL HARMFUL FOR ENVIRONMENT, SOLID, N.O.S. (NOT INCLUDE WASTE)(CHLOROTHALONİL MIXTURE)

IATA

UN-No. : 3077

Class : 9

Packing Group : III

Product Type: UN 3077 MATERIAL HARMFUL FOR ENVIRONMENT, SOLID, N.O.S. (NOT INCLUDE WASTE)(CHLOROTHALONİL MIXTURE)

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14. 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:



T⁺: Too Toxic

N: Harmful for Environment

Hazardous Materials Listed on the Label

Includes Chlorothalonil

Risk Phrases:

Physicochemical: -

Health:

R26: Too toxic if inhaled.

R37: It irritates respiratory system.

R40: Limited proof for cancerogenic effect.

R41: Serious harm risk on eye.

R43: It may cause sensitivity in case of contact with skin.

Environment:

R50/53: Too toxic for aquatic organisms and may cause long-term adverse effects in the aquatic environment.

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Safety Phrases

- S1/2: Lock it up and keep out of the reach of children.
- S4: Keep away from dwellings
- S13: Keep away food, drink and feedstuff.
- S20: Do not eat or drink while using.
- S24: Avoid contacting with skin.
- S26: Wash with plenty of water in case of contact with skin and call a doctor.
- S28: Wash with plenty of water in case of contact with skin.
- S29: Do not pour to sewage system. Dispose this material and its container in dangerous and special waste collecting places.
- S35: Dispose safely of this material and container.
- S36/37/39: Use appropriate protective clothes, gloves and 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.
- S51: Use only in well-ventilated areas.
- S61: Avoid contaminating environment. Apply special usage instruction / Safety Data Sheet.
- S63: In case of inhalation: Take the patient to fresh air and provide him/her resting
- 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

Toxicity Class WHO (a.i.) U; EPA (formulation) II

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15. OTHER INFORMATION

N : Dangerous for the environment

T⁺ : Too Toxic

Xn : Harmful

All Risk Phrases under Section 2:

R22: Harmful if swallowed.

R26: Too toxic in case of inhalation

R37: Irritates to respiratory system

R40: Limited proof for cancerogenic effect.

R41: Serious harm risk on eye.

R43: It may cause sensitivity in case of contact with skin.

R50/53: Too toxic for aquatic organisms and may cause long-term adverse effects in the aquatic environment

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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.