

MATERIAL SAFETY DATA SHEET

NAME OF MATERIAL/PREPARATION

AFFLURON

Date of Preparation	08/08/2011
Date of Issue	19/08/2011
MSDS No	FORM_MSDS_R&D_032_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 : **AFFLURON**
Product Content : Diflubenzuron 480 g/L
Formulation Form : SC (Suspension Concentrate)
Cas No : 35367-38-5
EC No : 252-529-3
IRAC :15 benzoylurea

1.2 Usage of the Material/Preparation:

Insecticide

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	g/Kg	CAS No	EINECS/ELINCS	Hazard	R ¹	Classification
Diflubenzuron	480	35367-38-5	252-529-3	N	R50	N; R50
Diethylene glycol	80	111-46-46	203-872-2	Xn	R22	-
Others*	Outside classification due to absence of hazardous material.					

- ¹ R explanations are under section 16.

3. HAZARD IDENTIFICATION:



N: DANGEROUS FOR THE ENVIRONMENT

R50: Too toxic to aquatic organisms

4. FIRST AID MEASURES:

Poisoning Symptoms: Headache, dizziness, vomiting

First Aid Precautions: Wash the contaminated parts of the patient with soap and water. In case of contact with eye, wash with water for 15 minutes and take the pesticide package and label with you.

Antidote and Necessary Information: There is no specific antidote. The treatment is applied according to the symptoms

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5. FIRE FIGHTING MEASURES

Personal Protective Equipment during Intervention: Do not inhale fumes during explosion and fire. Use independent respiratory system if available in case of fire.

Dangers: Take notice of poisonous fumes during the fire.

Extinguishers: Foam, carbon dioxide, extinguishing powder.

Other Information: Keep the product away the fire place. Cool the containers with water. Use sand or soil after the extinguishing water if available.

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: Product is collected with liquid holder materials (such as sand, sawdust, chemical binders). Collect the material in tight plastic containers and keep safely until it is disposed. Contaminated materials and surfaces should be cleaned in compliance with environmental regulations. Prevent contaminating sewage system or running water by the product. Notify the authorities if the wastes contaminate the water.

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

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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, drink and animal feed items. Keep away from direct sunlight. Protect against freezing. Keep it in places that children cannot reach. Storage temperature -5- 40° C

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.

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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 : Liquid
Color : Beige
Odor : Odorless
Density : $1,19 \pm 0,05 \text{ g/cm}^3$ (20⁰C)
pH : 5-9 (% 10 solution)

10. STABILITY AND REACTIVITY

Conditions to be avoided : Extreme degrees and direct sun light
Materials to be avoided : Keep the strong acid and alkalis away.
Dangerous reaction : No dangerous reaction in appropriate storage and usage. Toxic and irritant vapors may occur as a result of burning and thermal decomposition. Stable under the declared storage conditions. No dangerous polymerization product.

11. TOXICOLOGICAL INFORMATION

Diflubenzuron Technical Material:

Acute Oral LD₅₀ rat and mouse >4640 mg/kg.

Skin and eye LD₅₀ rabbit >2000, rat >10 000 mg/kg. It is not classified as irritant to eye and skin. It does not make skin sensitive.

Inhalation LC₅₀ rat >2.88 mg/l.

NOEL (1 year) rat, mouse and dog 2 mg/kg b.w. daily.

No Teratogenic, mutagenic or oncogenic effect.

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ADI/RfD (JMPR) 0.02 mg/kg b.w. [2001]; (JECFA evaluation) 0.02 mg/kg b.w. [1994]; (EC) 0.012 mg/kg b.w. [2008]; (EPA) cRfD 0.02 mg/kg b.w. [1990, 1997]. Toxicity Class WHO (a.i.) U; EPA (formulation) III

12. ECOLOGICAL INFORMATION

Diflubenzuron Technical Material

Birds Acute Oral

LD₅₀ (14 days) bobwhite quail and mallard ducks >5000 mg/kg

LC₅₀ (8 days) bobwhite quail and mallard ducks >1206 mg/kg diet.

Fish

LC₅₀ (96 hours) zebra danio (*Brachydanio rerio*) >64.8, rainbow trout >106.4 mg/l

Daphnia LC₅₀ (48 hours) 0.0026 mg/l.

Algae NOEC *Selenastrum capricornutum* 100 mg/l

Bee It is not dangerous for bees; LD₅₀ (oral and contact) >100 µg/bee.

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.

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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 DIFLUBENZURON.)



IMDG

UN-No. : 3082

Class : 9

Packing Group : III

EMS :

Marine Pollutant : Yes

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

IATA

UN-No. : 3082

Class : 9

Packing Group : III

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

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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:



N: Harmful for Environment

Hazardous Materials Listed on the Label

Includes Diflubenzuron.

Risk Phrases :

Physicochemical : -

Health : -

Environment :

R50 : Too toxic for aquatic organisms.

Safety Phrases:

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

S13 : Keep away from foods, drinks and feeds

S 29 : Do not pour to sewage system.

S 56 : Dispose of this material and the container in dangerous and special waste collecting places.

S 61 : Avoid releasing into environment. Apply special usage directives / Safety Information Form.

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Important Labeling:

Follow instructions to avoid personal and environmental risks

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

16. OTHER INFORMATION

N : Harmful for Environment

Xn : Harmful

All Risk Phrases under Section 2:

R22 : It is harmful in case of swallow

R50 : Too toxic for aquatic organisms.

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Prepared By : Seçil 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.