

PRODUCT SAFETY DATA SHEET

SUBSTANCE / PREPARATION NAME

DUGARY

Date of preparation	24/07/2015
Release Date	24/07/2015
MSDS No	FORM_MSDS_R&D_209_00
Renewal Date/No	

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

1.1 Substance/ Presentation Of The Preparation:

Product Name : **DUGARY**
Product Description : Milbemectin 9,3 g/L
Formulation Type : EC (Concentrated Emulsion)

Milbemectin

MA₃(<30%)

Cas No : 51596-10-2

IRAC : 6

MA₄(>70 %)

Cas No : 51596-11-3

IRAC : 6

1.2 Usage of Substance/Preparation:

Insecticide

1.3 Presentation of the Company:

Manufacturer and Licensee Company:

Company Name : AGRİ SCIENCES TARIM VE İLAÇ ÜR. SAN. TİC. LTD. ŞTİ.

Adress : 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.

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2. INFORMATION ABOUT THE CENTENT / COMPOSITION:

Substance	g/L	CAS No	EINECS/ELINCS	Hazard	R ¹	Classification
Milbemectin	9,3	MA3:51596-10-2 MA4:51596-11-3	-	-	-	-
Acetophenone	100	98-86-2	202-708-7	Xn, Xi	R22, R36	-
Xylene	>500	1330-20-7	215-535-7	Xn, Xi	R10,R20/21, R38	Xn R20/21,R38
Others	These are excluded because of not containing hazardous substance.					

- Descriptions about ¹ R are given in chapter 16.

3. IDENTIFICATION OF HAZARDS:



Xn: Harmful

R10 : Flammable.
R20/21 : Harmful, if inhaled and contact with skin.
R38 : Irritating the skin.

4. FIRST AID PRECAUTIONS:

Symptoms of Poisoning: There are not any specific symptom. General symptoms are; initially nausea, vomiting, stomachache and diarrhea. It can cause to skin and eye irritation when contacted with drug.

First Aid Measures: If it is contacted with eye, flush eyelids slowly for 10 - 15 minutes.If necessary, consult to a doctor with medication.If the patient swallowed,

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vomiting the patient. stomach should be washed, by paying attention to not to escape the stomach contents into the respiratory tract.

Antidote and Required Information: There is no a special antidote. Supportive treatment according to symptoms.

5. FIRE CONFLICT PRECAUTIONS

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, extunguishing powder.

Other Informations: 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.

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.

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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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid, clear
Color : Yellowish
Odour : Aromatic
Density : $0,90 \pm 0,05 \text{ g/cm}^3$ (20⁰C)
pH : 5-8 1% (20⁰C)
Flash Point : 25 ⁰C.

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10. STABILITY AND REACTION

Conditions to avoid : Extereme temperatures and direct sunlight.

Substances to avoid : Avoid from strong acids and bases.

Hazardous reactions : There is not hazardous reactions when stored and handled suitable. Resistant to storage conditions. Hazardous polymerization products does not occur.

11. TOXICOLOGICAL INFORMATION

Milbemectin Technical Substance:

Oral Acute oral LD₅₀ for male mice 324, female mice 313, male rats 762, female rats 456 mg/kg. **Skin and eye** Acute percutaneous LD₅₀ for male and female rats >5000 mg/kg.

Not a skin or eye irritant. Not a skin sensitiser (guinea pigs). **Inhalation** LC₅₀ (4 h) for male rats 1.90, female rats 2.80 mg/kg. **NOEL** for male rats 6.81, female rats 8.77, male mice 18.9, female mice 19.6 mg/kg daily. **ADI/RfD** (EC) 0.03 mg/kg b.w. [2005]; (FSC) 0.03 mg/kg. **Other** Not carcinogenic, not teratogenic, not mutagenic.

12. ECOLOGICAL INFORMATION

Milbemectin Technical Substance:

Birds LD₅₀ for male chickens 660, female chickens 650, male Japanese quail 1005, female Japanese quail 968 mg/kg. **Fish** LC₅₀ (96 h) for rainbow trout 4.5, carp 17 µg/l.

Daphnia EC₅₀ (4 h, flow-through) 0.011 ppm (*EU Rev. Rep.*). **Algae** E_bC₅₀ (120 h) for *Selenastrum capricornutum* >2 mg/l. **Bees** LD₅₀ (oral) 0.46 µg/bee; (contact) 0.025 µg/bee. **Worms** LC₅₀ (14 d) for *Eisenia foetida* 61 ppm.

13. DISPOSAL INFORMATION

Product : Wastes should disposed 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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14. TRANSPORT INFORMATION

ADR/RID/ADNR

UN-No. : 1993

Hazard Signal : 3

Packaging Group : III

Description of the goods : UN 1993 FLAMMABLE LIQUIDS N.O.S (Containing Xylene and Acetophenon)

UN-No. : 1993

Class : 3

Packaging Group : III

EMS :

Marine Pollutant : Yes

Description of the goods : UN 1993 FLAMMABLE LIQUIDS N.O.S (Containing Xylene and Acetophenon)

IATA

UN-No. : 1993

Class : 3

Packaging Group : III

EMS :

Marine Pollutant : Yes

Description of the goods : UN 1993 FLAMMABLE LIQUIDS N.O.S (Containing Xylene and Acetophenon)

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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: Harmful

Hazardous Substances Found On The Label

Containing Xylene and Acetophenon.

Risk Phrases

Physicochemical:

R10 : Flammable.

Health:

R20/21 : Harmful, if inhaled and contact with skin.

R38 : Irritating the skin.

Environment: -

Safety Phrases:

S1/2 : Keep away from children and store under lock.

S13 : Keep away from foods, drinks and animal feedstuffs

S 36/37/39 : Use suitable protective clothing, gloves and protective goggles/mask.

S43 : Use carbon dioxide, fire extinguish powder, foam in case of exacerbation.

S:46 : If swallowed, seek medical advice immediately, show the container or label.

S64 : If swallow, rinse mouth with water (Only if the person is conscious).

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Important Labeling :

To avoid from risks to man and environment, comply with the instruction of use.
Toxicity class WHO (a.i.) II

16. OTHER INFORMATIONS

Xi : Irritant
Xn : Harmful

Risk phrases mentioned in Section 2:

R10 : Flammable.
R20/21 : Harmful, if inhaled and contact with skin.
R22 : Harmful if swallowed
R36 : Irritating to eyes
R38 : Irritating the skin.

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Prepared By : Remzi Can KARAN

This security information form is additional to manufacturer firm's instructions, however does not replace with instructions. This form contains regulation criterias 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.