

PRODUCT SAFETY DATA SHEET

SUBSTANCE / PREPARATION NAME

ARMANDO

Date of preparation	13/07/2015
Release Date	13/07/2015
MSDS No	FORM_MSDS_R&D_191_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 : **ARMANDO**
Product Description : Malathion 650 g/L
Formulation Type : EC (Concentrated Emulsion)
Cas No : 121-75-5
EC No : 204-497-7
IRAC : B organophosphate

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
Malathion	650	121-75-5	204-497-7	Xn, N	R22, R50/53	Xn;R22 N;R50/53
Xylene	>500	1330-20-7	215-535-7	Xn, Xi	R10, R20/21, R38	R10, Xn; R20/21, Xi; R38
Others	These are excluded because of not containing hazardous substance.					

- **Descriptions about ¹R are given in chapter 16.**

3. IDENTIFICATION OF HAZARDS:



Xn: Harmful

R10

R20/21/22

R38

R50/53

the aquatic environment



N: Dangerous for the environment

: Flammable.

: Harmful by inhalation, in contact with skin and if swallowed

: Irritating the skin.

: Very toxic to aquatic organisms, may cause long-term adverse effects in

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4. First Aid Precautions:

Symptoms of Poisoning: It inactivates kolinestera. May cause over-sweating, headache, fatigue, dizziness, nausea, fasciculation and vomiting.

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, 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.

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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.

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.

The storage temperature 0-30° C

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8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Limit of Exposure: Malathion: NIOSH REL: TWA 10 mg/m³ [skin] ; OSHA PEL †: TWA 15 mg/m³ [skin]

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 : Yellow - Light Brown
Odour : Aromatic, characteristic
Density : 0,9± 0,05 g/cm³ (20⁰C)
pH : 6,5 ± 1 1% (20⁰C)
Flash Point : 28 ± 5⁰C.

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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

Malathion Technical Substance:

Oral Acute oral LD₅₀ for rats 1375–5500 mg/kg (pure), mice 775–3320 mg/kg.

Skin and eye Acute percutaneous LD₅₀ (24 h) for rabbits 4100–8800, rats >2000 mg/kg.

Inhalation LC₅₀ (4 h) for rats >5.2 mg/l. **NOEL** In 2 y trials on rats, the only effect seen at 500 ppm (29 mg/kg b.w. daily) was inhibition of cholinesterase in plasma and red blood cells. **ADI/RfD** (EFSA) 0.03 mg/kg b.w. [2006]; (JMPR) 0.3 mg/kg b.w. [1997, 2003]; (EPA) aRfD 0.14, cRfD 0.07 mg/kg b.w. [2006]. **Water GV** GV not established (O). **Toxicity Class** WHO (a.i.) III; EPA (formulation) III

12. ECOLOGICAL INFORMATION

Malathion Technical Substance:

Birds Acute oral LD₅₀ for bobwhite quail 359 mg/kg. Dietary LC₅₀ (5 d) for bobwhite quail 3500, ring-necked pheasants 4320 mg/kg diet. **Fish** LC₅₀ (96 h) for bluegill sunfish 54, rainbow trout 180 µg/l; LC₅₀ for three-spined stickleback 21.7 µg/l. **Daphnia** EC₅₀ (48 h) 1.0 µg/l. **Algae** EC₅₀ (72 h) 13 mg/l. **Bees** Toxic to bees. LD₅₀ (topical) 0.27 µg/bee. **Worms** LC₅₀ 613 mg/kg soil. **Other beneficial spp.** LR₅₀ for *Aphidius rhopalosiphi* 0.062 g/ha.

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13. DISPOSAL INFORMATION

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

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

14. TRANSPORT INFORMATION

ADR/RID/ADNR

UN-No. : 3017

Hazard Signal : 6.1

Packaging Group : III

Description of the goods : UN 3017 Organophosphorus pesticides, liquid, toxic, flammable, flashpoint not less than 23°C (CONTAINING Malathion and xylene.)IMDG

UN-No. : 3017

Class : 6.1

Packaging Group : III

EMS :

Marine Pollutant : Yes

Description of the goods : UN 3017 Organophosphorus pesticides, liquid, toxic, flammable, flashpoint not less than 23°C (CONTAINING Malathion and xylene.)IMDG

IATA

UN-No. : 3017

Class : 6.1

Packaging Group : III

EMS :

Marine Pollutant : Yes

Description of the goods : UN 3017 Organophosphorus pesticides, liquid, toxic, flammable, flashpoint not less than 23°C (CONTAINING Malathion and xylene.)IMDG

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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



N: Dangerous for the environment

Hazardous Substances Found On The Label

Containing Malathion, Xylene

Risk Phrases

Physicochemical:

R10 : Flammable.

Health:

R20/21/22 : Harmful by inhalation, in contact with skin and if swallowed

R38 : Irritating the skin.

Environment

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

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Safety Phrases:

- S1/2 : Keep away from children and store under lock.
S13 : Keep away from foods, drinks and animal feedstuffs
S 29 :Do not pour into sewer system.
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.
S 56 : Dispose the material at hazardous or special waste collection point.
S64 : If swallow, rinse mouth with water (Only if the person is conscious).

Important Labeling :

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

16. DİĞER BİLGİLER

17. OTHER INFORMATIONS

- N** : Dangerous for the environment
Xi : Irritant
Xn : Harmful

Risk phrases mentioned in Section 2:

- R10 : Flammable.
R20/21/22 : Harmful by inhalation, in contact with skin and if swallowed
R38 : Irritating the skin.
R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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Date of Renewal/No :-
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.