

## PRODUCT SAFETY DATA SHEET

**SUBSTANCE / PREPARATION NAME**

**BARON**

Date of preparation	17/01/2012
Release Date	17/01/2012
MSDS No	FORM_MSDS_R&D_051_00
Renewal Date/No	

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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** : **BARON**  
**Product Description** : Chlorpyrifos Ethyl 480 g/L  
**Formulation Type** : EC (Concentrated Emulsion)  
**Cas No** : 2921-88-2  
**EC No** : 220-864-4  
**IRAC** : 1B 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 CONTENT/COMPOSITION :

Substance	g/L	CAS No	EINECS/ELINCS	Hazard	R <sup>1</sup>	Classification
Chlorpyrifos Ethyl	480	2921-88-2	220-864-4	T, N	R25, R50, R53	T; R25, N; R50, R53
Solvesso 100	>450	64742-95-6	265-199-0	Xn, Xi	R10, Xi;R37, Xn	R65, R66, R67, N;R51/53, Note H, Note P
Others	These are excluded because of not containing hazardous substance.					

- **Descriptions about <sup>1</sup>R are given in chapter 16.**

### 3. IDENTIFICATION OF HAZARDS:



#### **T: Toxic**

- R10 : Flammable.
- R25 : Toxic, if swallowed.
- R37 : Irritating to Respiratory system.
- R50 : Very toxic for aquatic organisms.
- R53 : May cause long-term adverse effects in aquatic environments.
- R65 : Harmful: may cause lung damage if swallowed.
- R66 : Repeated exposure may cause skin dryness or cracking
- R67 : Vapours may cause drowsiness and dizziness



#### **N: Dangerous for the environment**

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#### 4. First Aid Precautions:

**Toxication Symptoms:**Inactivates the cholinesterase enzyme in blood. Headache, dizziness, nervousness, eye sight defects and blurred vision, fatigue, diarrhea, respiration difficulty, perspiration, saliva, vomiting, bruising, smaller pupils, trembling, eyebrow fasciculation, spasms, reflex defects.

**First Aid Precautions:**Call doctor, take the pack and label with you. Take the patient far away from the spraying area, give him artificial transpiration. Take off his contaminated clothes, if contacted skin and eye, wash well with water form in. 15 minutes. If swallowed, the doctor should decide on the gastronomic lavage.

#### Antidote And Treatment Facts:

**Antidote:** ATROPINE SULPHATE is the antidote. Can be given up to 100 mg starting from 2-3 mg according to the level of the toxication. Doctor treatment is followed according to the symptoms and heaviness.

#### 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, extinguishing powder.

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**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.

**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

**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** : Light yellow-brown  
**Smell** : Aromatic Smell  
**Density** : 1,05-1,07 g/cm<sup>3</sup> (20<sup>0</sup>C)  
**pH** : 4-7 10% (20<sup>0</sup>C)  
**Flash Point** : min 40 <sup>0</sup>C.

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### 10. STABILITY AND REACTION

**Conditions to avoid** : Extreme 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

#### Chlorpyrifos Ethyl Technical Substance:

**Oral** Acute oral LD<sub>50</sub> for rats 135–163, guinea pigs 504, rabbits 1000–2000 mg/kg.

**Skin and eye** Acute percutaneous LD<sub>50</sub> for rabbits >5000 mg/kg; (tech.) for rats >2000 mg/kg. Mild skin and moderate eye irritant (rabbits). Not a skin sensitiser (guinea pigs).

**Inhalation** LC<sub>50</sub> (4–6 h) for rats >0.2 mg/l (14 ppb). **NOEL** (2 y) for rats 0.1 mg/kg b.w. daily; (18 mo) for mice 0.7 mg/kg b.w. daily; (2 y) for dogs 0.1 mg/kg b.w. daily. Acute oral NOEL for humans 1.0 mg/kg b.w. daily; acute dermal NOEL for humans 5.0 mg/kg b.w. daily. **ADI/RfD** (JMPR) 0.01 mg/kg b.w. [1999, 2004]; (EC) 0.01 mg/kg b.w. [2005]; (EPA) aRfD 0.005 mg/kg b.w., cRfD 0.0003 mg/kg b.w. [2001]. **Water GV** 0.03 mg/l **Other** Non-teratogenic. Not genotoxic in a range of *in vitro* and *in vivo* studies (*FAO Specifications*). **Toxicity Class** WHO (a.i.) II; EPA (formulation) II

**EC classification** T; R24|N; R50, R53| concn. dep.

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### 12. ECOLOGICAL INFORMATION

#### Chlorpyrifos Ethyl Technical Substance:

**Birds** Acute oral LD<sub>50</sub> for mallard ducks 490, house sparrows (*Passer domesticus*) 122, chickens 32–102 mg/kg. Dietary LC<sub>50</sub> (8 d) for mallard ducks 180, bobwhite quail 423 ppm. **Fish** LC<sub>50</sub> (96 h) for bluegill sunfish 0.002–0.010, rainbow trout 0.007–0.051, roach 0.25, fathead minnows 0.12–0.54 mg/l. **Daphnia** LC<sub>50</sub> (48 h) 1.7 µg/l. **Algae** NOEC for *Selenastrum capricornutum* >0.4 mg/l. **Other aquatic spp.** LC<sub>50</sub> for Korean shrimps (*Palaemon macrodactylus*) 0.05 µg/l. **Bees** Toxic to bees. LD<sub>50</sub> (oral) 360 ng/bee; (contact) 70 ng/bee. **Worms** LC<sub>50</sub> (14 d) for *Eisenia foetida* 210 mg/kg soil. **Other beneficial spp.** Harmful to Carabidae and Staphylinidae (IOBC); ED<sub>50</sub> (96 h) for Tenebrionidae *c.* 60 µg/kg b.w. (*FAO Specifications*). Toxic to Collembola (J. A. Wiles & G. K. Frampton, *Pestic. Sci.*, 1996, **47**, 273).

### 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 Packing** : 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.

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### 14. TRANSPORT INFORMATION



#### ADR/RID/ADNR

**UN-No.** : 3017

**Hazard Signal** : 6.1

**Packaging Group** : III

**Property of the product** : UN No: 3017 Organophosphorus pesticides, liquid, toxic, flammable, flashpoint not less than 23°C CONTAINING CHLORPYRIPHOS ETHYL AND SOLVESSO 100.)

#### IMDG

**UN-No.** : 3017

**Class** : 6.1

**Packaging Group** : III

**EMS** :

**Marine Pollutant** : Evet

**Property of the product** : UN No: 3017 Organophosphorus pesticides, liquid, toxic, flammable, flashpoint not less than 23°C CONTAINING CHLORPYRIPHOS ETHYL AND SOLVESSO 100.)

#### IATA

**UN-No.** : 3017

**Class** : 6.1

**Packaging Group** : III

**Property of the product** : UN No: 3017 Organophosphorus pesticides, liquid, toxic, flammable, flashpoint not less than 23°C CONTAINING CHLORPYRIPHOS ETHYL AND SOLVESSO 100.)



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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:



**T: Toxic**

**N: Dangerous for the environment**

#### Hazardous Substances Found On The Label

Containing Lambda Cyhalothrin and Xylene.

#### Risk Phrases

##### Physicochemical:

R10 : Flammable.

##### Health:

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

R25 : Toxic, if swallowed.

R38 : Irritating the skin.

##### Environment

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- R50 : Very toxic for aquatic organisms  
R53 : May cause long-term adverse effects in aquatic environments.

### Safety Phrases:

- S1/2 : Keep away from children and store under lock.  
S13 : Keep away from foods, drinks and animal feedstuffs  
S20 : Do not eat or drink during the usage.  
S28 : Wash with plenty of water after contact with skin.  
S 29 : Do not pour into sewer system.  
S35 : This substance and its container must be disposed of in a safe manner.  
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.  
S45 : In case of accident or if you feel unwell, contact a doctor immediately (if possible, show the label).  
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).  
P11 : Only for professional users.

### Important Labeling :

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

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### 16. OTHER INFORMATIONS

**N** : Dangerous for the environment  
**Xi** : Irritant  
**Xn** : Harmful  
**T** : Toxic

#### **Risk phrases mentioned in Section 2:**

R10 : Flammable.  
R20/21 : Harmful, if inhaled and contact with skin.  
R25 : Toxic, if swallowed.  
R38 : Irritating the skin.  
R50 : Very toxic for aquatic organisms  
R53 : May cause long-term adverse effects in aquatic environments.

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**Prepared by** : Seçil CANAYAKIN

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.