

PRODUCT SAFETY DATA SHEET

SUBSTANCE / PREPARATION NAME

ARVICA

Date of preparation	01/09/2015
Release Date	01/09/2015
MSDS No	FORM_MSDS_R&D_248_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. DEFINITION OF SUBSTANCE/PREPARATION AND COMPANY/ BUSINESS OWNER:

1.1 Substance/ Presentation Of The Preparation:

Product Name : ARVICA
Content : KRESOXIM METHYL 100g/L + BOSCALID 200 g/L
Formulation Type : SC (Suspension Concentrate)

Cas No : 143390-89-0 / 188425-85-6
EC No : - / 203-625-9
FRAC : 7, C2 SDHI: pyridinecarboxamide + 11, C3 QoI; strobilurin type: oximinoacetate

1.2 Usage of Substance/Preparation

Fungicide

1.3 Firm Presentation of the Company:

Manufacturer and Licensee Company:

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

Address : Bekir Saydam Caddesi No: 31 Pancar Torbalı / İZMİR

Telephone : +90 0232 864 13 33

Fax : +900232 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 ¹	Classification
Kresoxim Methyl	100	143390-89-0	-	Xn, N	R40 R51/53	Xn; R40 N; R51/53
Boscalid	200	188425-85-6	203-625-9	N	R51/53	N; R51/53
Mono Etilen Glikol	5	107-21-1	203-473-3	-	-	-
Others ²	<ul style="list-style-type: none"> • It's out of classification in that does not contain dangerous substances. 					

- Descriptions about ¹R are given in chapter 16

3. IDENTIFICATION OF HAZARDS:



Xi: Irritant



N: Dangerous for the Environment

R40 : Limited evidence of a carcinogenic effect

R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

4. FIRST AID MEASURES:

User Safety: Please wash your face and hands before eating, drink or smoking anything. If you feel unwell immediately stop the work and take first aid measures. After the work is completed thoroughly clean the protective equipment, and wash part of body which came into contact with the product.

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Symptoms Of Poisoning: Headache, weakness and nausea

First Aid Measures: In case you or another feel unwell or poisoned immediately stop the work. Avoid further contact with the product. Any coveralls, clothes etc. which came into contact with the pesticide should be removed and any parts of the body which came into contact with the pesticide should be washed with plenty of soap and water. In case there was any pesticide contact with eyes, wash the eyes with plenty of slowly flowing clean water for 15 minutes. If necessary contact a physician. Or take the patient to a physician and show this container or label. Do not give anything orally to the patient in case the patient is unconscious.

Antidote and Treatment: There is no special antidote for the product. It should be treated in accord with symptoms.

5. FIRE FIGHTING MEASURES

Personal Protective Equipment: Do not inhale the fumes generated during the explosion or fire. If available, use air-independent respiratory mask during the fire.

Dangers: Consider the dangerous fumes such as hydrogen chloride or carbon monoxide generated during the fire.

Extinguishers: Foam, CO₂, fire extinguishing powder.

Other Details: Take the product away from fire place. Cool the containers with water. If available, use earth or sand after using fire extinguishing water.

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.

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Clean-up Methods: The spilled material should be collected with a liquid absorbent material (for instance; absorbent sand, sawdust, chemical binder). Place the product into tightly sealed plastic containers and store it in a safe place until it is disposed. Contaminated materials and surfaces should be cleaned in compliance with environmental regulations. The spilled material should be prevented from reaching sewage and running water. If waste is mixed with water, the authorities must be notified.

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 contact with mouth, skin and eyes. Do not inhale. Thoroughly wash your hands after using. Other security precautions are not required other than warnings stated regarding use of closed package. Only use in closed spaces where there is a local aspiration device

Storage : Keep in original package in a cool, dry and well ventilated place. Keep away from food and animal feed items. Keep away from direct sunlight. Protect against freezing. Keep it away from the reach of children.

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.

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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 : Liquid
Color : Beige-White
Odor : Characteristic
pH : $7,5 \pm 1$ 1% (20°C)
Density : $1,09 \pm 0,05$ g/cm³ (20°C)

10. STABILITY AND REACTION

Conditions to avoid: Extreme heat and light

Material to avoid: Strong acids and alkaline.

Hazardous reactions: No / No hazardous reactions if stored and handled as described. Toxic and irritant vapor can be occurred because of the thermal decomposition.

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11. TOXICOLOGICAL INFORMATION

Kresoxim Methyl Technical Substance:

Oral Acute oral LD₅₀ for rats >5000 mg/kg.

Skin and eye Acute percutaneous LD₅₀ for rats >2000 mg/kg. Non-irritating to skin and eyes (rabbits).

Inhalation LC₅₀ (4 h) for rats >5.6 mg/l.

NOEL (3 mo) for male rats 2000 ppm (146 mg/kg daily), for female rats 500 ppm (43 mg/kg daily); (2 y) for male rats 36, for female rats 48 mg/kg b.w. daily.

ADI/RfD (EC) 0.4 mg/kg b.w. [1999]; (JMPR) 0.4 mg/kg b.w. [1998]; (EPA) RfD 0.36 mg/kg [1998].

Other Negative in the Ames test, and non-teratogenic.

EC classification R40| N; R50, R53

Boscalid Technical Substance:

Oral Acute oral LD₅₀ for rats >5000 mg/kg.

Skin and eye Acute dermal LD₅₀ for rats >2000 mg/kg. Not a skin or eye irritant (rabbits). Not a skin sensitiser (guinea pigs).

Inhalation LC₅₀ (4 h) for rats >6.7 mg/l.

NOEL for rats c. 5 mg/kg b.w.; chronic NOAEL 21.8 mg/kg b.w. (*EPA Fact Sheet*).

ADI/RfD (JMPR) 0.04 mg/kg b.w. [2006]; (EC) 0.04 mg/kg b.w. [2008]; (EPA) no acute endpoint identified; cRfD 0.218 mg/kg b.w. [2003]; (FSC) 0.044 mg/kg b.w. [2006].

Other Non-mutagenic (Ames, mice), non-teratogenic (rats, rabbits), non-carcinogenic (dogs, rats, mice); no adverse effects on reproduction (rats).

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12. ECOLOGICAL INFORMATION

Kresoxim Methyl Technical Substance:

Although parent molecule is toxic to aquatic species, exposure tests and ecological studies have shown that there is no danger of permanent damage to aquatic organisms when kresoxim-methyl is used as recommended.

Birds LD₅₀ (14 d) for quail >2150 mg/kg. LC₅₀ (8 d) for bobwhite quail and mallard ducks >5000 ppm.

Fish LC₅₀ (96 h) for bluegill sunfish 0.499 mg/l, rainbow trout 190 ppb.

Daphnia EC₅₀ (48 h) 0.186 mg/l.

Algae EC₅₀ (0–72 h) for *Ankistrodesmus bibraianus* 63 µg/l.

Bees LD₅₀ (48 h) (oral) 14 µg/bee; (contact) >20 µg/bee.

Worms LC₅₀ >937 mg/kg.

Boscalid Technical Substance:

Birds LD₅₀ for bobwhite quail >2000 mg/kg b.w.

Fish LC₅₀ (96 h) for rainbow trout 2.7 mg/l.

Daphnia EC₅₀ (48 h) 5.33 mg/l.

Algae E_rC₅₀ (96 h) for *Pseudokirchneriella subcapitata* 3.75 mg/l.

Other aquatic spp. NOEC for *Chironomus riparius* 2.0 mg/l.

Bees NOEC (oral) 166 µg/bee; (contact) 200 µg/bee.

Worms LC₅₀ for *Eisenia foetida* >1000 mg/kg dry soil.

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13. DISPOSAL INFORMATION

Product : Wastes should dispose 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

14. TRANSPORT INFORMATION

ADR/RID/ADNR

UN-No. : 3082

Danger Signal : 9

Packaging Group : III

Property of the product : UN 3082 ENVIRONMENTAL HAZARDOUS SUBSTANCE, LIQUID N.O.S. (CONTAINING KRESOXIM METHYL AND BOSCALID)

IMDG

UN-No. : 3082

Danger Signal : 9

Packaging Group : III

Sea Pollutant : Yes

Property of the product : UN 3082 ENVIRONMENTAL HAZARDOUS SUBSTANCE, LIQUID N.O.S. (CONTAINING KRESOXIM METHYL AND BOSCALID)



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IATA

UN-No. : 3082

Class : 9

Packaging Group : III

Property of the product : UN 3082 ENVIRONMENTAL HAZARDOUS SUBSTANCE, LIQUID N.O.S. (CONTAINING KRESOXIM METHYL AND BOSCALID)

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:



Xi: Irritant



N: Dangerous for the environment

Hazardous Substances Found On The Label:

Containing Kresoxim Methyl and Boscalid.

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Risk Phrases

Health:

R40 : Limited evidence of a carcinogenic effect

Environment:

R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Safety Phrases:

S2 : Keep out of the reach of children

S9 : Keep container in a well-ventilated place

S13 : Keep away from food, drink and animal foodstuffs

S37 : Wear suitable gloves

S46 : If swallowed, seek medical advice immediately and show this container or label

Important Labeling :

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

16. OTHER INFORMATIONS

N: DANGEROUS FOR THE ENVIRONMENT

Xn: HARMFUL

Risk phrases mentioned in Section 2:

R40 : Limited evidence of a carcinogenic effect

R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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Prepared By : Remzican KARAN

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.