

MATERIAL SAFETY DATA SHEET

PRODUCT NAME

AVEXUS

Date of Preparation	01/09/2015
Date of Issue	01/09/2015
MSDS No	FORM_MSDS_R&D_249_00
Rev. Date/No	

Sayfa No: 1/12

This MSDS is written according to MSDS PREPARATION AND DISTRIBUTION REGULATION FOR HAZARDOUS SUBSTANCE AND PREPARATIONS (R.G. 26/12/2008-27092)

1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

Trade Name : AGEROS

Product Content : Ethofumesate 112 g/L + Phenmedipham 91 g/L + Desmedipham 71 g/L

Formulation Type :EC (Emulsion Concantrate)

Cas No : 26225-79-6 / 13684-63-4 / 13684-56-5

EC No : 247-525-3 / 237-199-0 / 237-198-5

HRAC :N WSSA 8 benzofuran/ C₁ WSSA 5 phenylcarbamateherbicide / C₁ WSSA 5 phenylcarbamateherbicide

1.1 Use Of Substance:

Herbicide

1.2 Manufacturer Information

Company Name : AGRI SCIENCES Tarım ve İlaç Ür. San. ve Tic. Ltd. Şti.

Address : Bekir Saydam Cad. No: 31 Pancar, Torbalı-İZMİR TURKEY

Tel : +90 232 864 13 33

Fax Number : +90 232 864 16 79

Website : www.agri-sci.com

1.3 Emergency:

Emergency Tel : +90 232 8641433

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2. COMPOSITION /INFORMATION ON INGREDIENTS

Material	g/L	CAS No	EINECS/ELINCS	Hazardous	R ¹	Classification
Phenmedipham	91	13684-63-4	237-199-0	N	R50/53	N; R50/53
Desmedipham	71	13684-56-5	237-198-5	N	R50/53	N; R50/53
Ethofumesate	112	26225-79-6	247-525-3	N	R51/53	N; R51/53
N,Ndimethylcapramide	>500 g/L	11433-76-2	238-405-1	Xi	R36/37/38	Xi;R36/37/38
Others	Outside classification due to absence of hazardous material.					

- ¹ R: Please see section 16 of explanation of R phrases

3. HAZARD IDENTIFICATION



Xi:Irritant



N: Dangerous for environment

R 36/37/38 : Irritating to eyes, respiratory system and skin

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

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4. FIRST AID MEASURES

TOXICATION SYMPTOMS:

Headache, dizziness, weakness, nausea and haze

FIRST AID PRECAUTIONS:

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:

No special antidote. Symptomatic treatment is followed.

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.

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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: 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.

Storage Temperature: 0-30 °C

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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.

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

Appearance : Clear liquid

Color : Yellow-brown

Odor : Aromatic

pH : 4,0±1 1% (20⁰C)

Flash-Point : 60± 5⁰C.

Density : 0,99±0,05g/cm³ (20⁰C)

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10. STABILITY AND REACTIVITY

Conditions to avoid: Extreme heat and light

Materials to avoid: Strong acids and alkaline

Reactions: Stable at appropriate storage conditions.

11. TOXICOLOGICAL INFORMATION

Phenmedipham Technical Material;

Oral Acute oral LD₅₀ for rats and mice >8000, guinea pigs and dogs >4000 mg/kg.

Skin and eye Acute percutaneous LD₅₀ for rabbits 1000, rats 2500 mg/kg. Not a skin sensitiser.

Inhalation LC₅₀ (4 h) for rats >7.0 mg/l.

NOEL NOAEL (2 y) for rats 60 mg/kg diet (3 mg/kg b.w. daily); (90 d) for rats 150 mg/kg diet (13 mg/kg b.w. daily).

ADI/RfD (EC) 0.03 mg/kg b.w. [2004]; (EPA) cRfD 0.24 mg/kg b.w. [2005].

Other Acute i.p. LD₅₀ for rats >5000 mg/kg.

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

EC classification N; R50, R53

Desmedipham Technical Material;

Oral Acute oral LD₅₀ for rats >10 250, mice >5000 mg/kg.

Skin and eye Acute percutaneous LD₅₀ for rabbits >4000 mg/kg. Not a skin sensitiser.

Inhalation LC₅₀ (4 h) for rats >7.4 mg/l.

NOEL (2 y) for rats 3.2 mg/kg daily, for mice 22 mg/kg daily.

ADI/RfD (EC) 0.03 mg/kg b.w. (based on 2 year rat study) [2004]; (EPA) RfD 0.04 mg/kg b.w. [1996].

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

EC classification N; R50, R53| concn. dep.

Ethofumesate Technical Material;

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

Skin and eye Acute percutaneous LD₅₀ for rats >2000 mg/kg. Not a skin or eye irritant.

Not a skin sensitiser.

Inhalation LC₅₀ (4 h) for rats >3.97 mg/l air.

NOEL NOAEL (2 y) for rats 7 mg/kg b.w. (*EU Rev. Rep.*); NOAEL for rabbits 30 mg/kg b.w.; chronic NOAEL for rats 127 mg/kg b.w. (*EPA RED*).

ADI/RfD (EC) 0.07 mg/kg b.w. [2002]; (EPA) aRfD 0.3, cRfD 1.3 mg/kg b.w. [2005].

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

EC classification N; R51, R53

12. ECOLOGICAL INFORMATION

Phenmedipham Technical Material;

Birds Acute oral LD₅₀ for chickens >2500, mallard ducks >2100 mg/kg. Dietary LC₅₀ (8 d) for mallard ducks and bobwhite quail >6000 mg/kg diet.

Fish LC₅₀ (96 h) for rainbow trout 1.4–3.0, bluegill sunfish 3.98 mg/l. LC₅₀ (96 h) for harlequin fish 16.5 mg/l (15.9% EC formulation).

Daphnia LC₅₀ (72 h) 3.8 mg/l.

Algae IC₅₀ (96 h) 0.13 mg/l.

Bees Not toxic to bees; LD₅₀ (oral) >23 µg/bee; (contact) 50 µg/bee.

Worms EC₅₀ (14 d) >156 mg/kg soil.

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Desmedipham Technical Material;

Birds LC₅₀ (14 d) for bobwhite quail and mallard ducks >2000 mg/kg. Dietary LC₅₀ (8 d) for bobwhite quail and mallard ducks >5000 mg/kg diet.

Fish LC₅₀ (96 h) for rainbow trout 1.7, bluegill sunfish 3.2 mg/l.

Daphnia LC₅₀ (48 h) 1.88 mg/l.

Algae IC₅₀ (72 h) 0.061 mg/l.

Bees Not toxic to bees; LD₅₀ >50 µg/bee.

Worms LC₅₀ (14 d) 466.5 mg/kg dry soil.

Ethofumesate Technical Material;

Birds Acute oral LD₅₀ for mallard ducks >3552, bobwhite quail >8743 mg/kg. Dietary LC₅₀ (8 d) for mallard ducks >1082, bobwhite quail >839 mg/kg b.w. daily.

Fish LC₅₀ (96 h) for rainbow trout 11.91–20.2, bluegill sunfish 12.37–21.2, mirror carp 10.92 mg/l.

Daphnia EC₅₀ (48 h) 13.52–22.0 mg/l.

Algae EC₅₀ 3.9 mg/l.

Other aquatic spp. EC₅₀ (growth) (96 h) for *Crassostrea virginica* (eastern oysters) 1.7 mg/l; LC₅₀ (96 h) for *Mysidopsis bahia* (mysid shrimps) 5.4 mg/l.

Bees LC₅₀ (contact and oral) >50 µg/bee.

Worms LC₅₀ 134 mg/kg soil.

Other beneficial spp. LD₅₀ for *Aleochara bilineata* >1250, *Poecilus cupreus* and *Chrysoperla carnea* >2000 g/ha.

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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.

14. TRANSPORT INFORMATION

ADR/RID/ADNR

UN-No. : 3082

Hazard Mark : 9

Packing Group : III

Product type : UN 3077 Environmental hazardous substance, liquid N.O.S. (CONTAINS PHENMEDIPHAM, DESMEDIPHAM, ETHOFUMESATE and N,N DIMETHYLCAPRAMITE)

IMDG

UN-No. : 3082

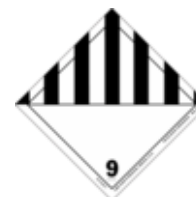
Class : 9

Packing Group : III

EMS :

Marine Pollutant : Evet

Product Type : UN 3077 Environmental hazardous substance, liquid N.O.S. (CONTAINS PHENMEDIPHAM, DESMEDIPHAM, ETHOFUMESATE and N,N DIMETHYLCAPRAMITE)



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IATA

UN-No. : 3082

Class : 9

Packing Group : III

Product Type : UN 3077 Environmental hazardous substance, liquid N.O.S. (CONTAINS PHENMEDIPHAM, DESMEDIPHAM, ETHOFUMESATE and N,N DIMETHYLCAPRAMITE)

15. REGULATORY INFORMATION

This MSDS is written according to MSDS PREPARATION AND DISTRIBUTION REGULATION FOR HAZARDOUS SUBSTANCE AND PREPARATIONS (R.G. 26/12/2008-27092)

This product is including HALOXYFOB-R-METHYL ESTER and Xylene.



Xi: Irritant



N: Dangerous for the environment

Risk Phrases:

R 36/37/38 : Irritating to eyes, respiratory system and skin

Environment:

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

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Safety Phrases:

- S2 : Keep out of the reach of children
S9 : Keep container in a well-ventilated place
S25 : Avoid contact with eyes
S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S29 : Do not empty into drains
S37 : Wear suitable gloves
S46 : If swallowed, seek medical advice immediately and show this container or label
S56 : Dispose of this material and its container at hazardous or special waste collection point

16. Other Informations

- N : Dangerous for environment
Xi : Irritant

Section 2

- R36/37/38 : Irritating to eyes, respiratory system and skin
R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage use of the product. It is not applicable to unusual or non- standard uses of the product nor where instructions or recommendations are not followed.

All information is given in good faith bit without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.