

PRODUCT SAFETY DATA SHEET

SUBSTANCE / PREPARATION NAME

FORAX

Date of preparation	13/03/2016
Release Date	13/03/2016
MSDS No	FORM_MSDS_R&D_303_00
Renewal Date/No	14.07.2016

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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 : FORAX

Product Description : 100 g/l Amidosulfuron + 25 g/l IodosulfuronMethylSodium + 250 g/l MefenpyrDiethyl

Formulation Type : OD (Oil Dispersion)

Amidosulfuron

CasNo :120923-37-7

HRAC : B WSSA 2 sulfonylurea

IodosulfuronMethylSodium

Cas No :144550-36-7

HRAC :B WSSA 2 sulfonylurea

MefenpyrDiethyl

Cas No :135590-91-9

HRAC :Herbicide Safener

1.2 Usage of Substance/Preparation:

Herbicide

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: 45 Torbalı / İZMİR

Telephone : +90 232 864 13 33

Fax : +90 232 864 16 79

1.4 Emergency Telephone:

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Please call +90 0232 864 13 33 or 114 (UZEM) in an emergency.

2. INFORMATION ABOUT THE CONTENT/COMPOSITION :

Substance	g/l	CAS No	EINECS/ELINCS	Hazard	R ¹	Classification
Amidosulfuron	100	120923-37-7	-	-	R52/53	-
IodosulfuronMethylSodium	25	144550-36-7	-	N	R50/53	N; R51/53
MefenpyrDiethyl	250	135590-91-9	-	N	R51/53	N; R51/53
HeavyAromaticNaphtha	> 500	64742-94-5	265-198-5	Xn	R65	Xn; R65
DiOctylSulphosuccinate	20	577-11-7	209-406-4	Xi	R38, R41	-
Diğerleri	Tehlikeli Madde içermediğinden sınıflandırma dışı bırakılmıştır.					

- Descriptions about ¹R are given in chapter 16.

3. IDENTIFICATION OF HAZARDS:



Xn: Harmful



N: Dangerous for the environment

R65 : Harmful: may cause lung damage if swallowed

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

4. First Aid Precautions:

Symptoms of Poisoning: There are not any specific symptoms.

First Aid Precautions: In the poisoning case remove the patient from the sprayed field, If he/she is at closed area, you must immediately send him to fresh air. If it is contacted with eyes, wash eyelids slowly for 15 minutes. If necessary, consult to a doctor with medication.

Antidote: There is not specific antidote. In the case of poisoning, call the international poison center.

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.

Other Information: 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

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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 -5-40° C

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.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid, viscose
Color : Yellow- Brown
Smell : Characteristic
Density : $1.13 \pm 0.05 \text{g/cm}^3$ (20°C)
pH : 10 ± 1 1% (20°C)

10. STABILITY AND REACTION

Conditions to avoid : Extreme temperatures and direct sunlight.

Substances to avoid : There are not hazardous reactions when stored and handled suitable.

Hazardous reactions : There are not hazardous reactions when stored and handled suitable. A hazardous polymerization product does not occur.

11. TOXICOLOGICAL INFORMATION

Amidosulfuron Technical Substance:

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

Skin and eye Acute percutaneous LD₅₀ for rats > 5000 mg/kg.

Inhalation LC₅₀ (4 h) for rats > 1.8 mg/l air.

NOEL (2 y) for male rats 400 ppm diet (19.45 mg/kg b.w. daily).

ADI/RfD (EC) 0.2 mg/kg b.w. [2007].

Other Non-teratogenic and non-mutagenic.

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Iodosulfuron Methyl Sodium Technical Substance:

Oral Acute oral LD₅₀ for rats 2678 mg/kg.

Skin and eye Acute percutaneous LD₅₀ for rats >2000 mg/kg. Non-irritating to skin and eyes (rabbits). Not a skin sensitiser (guinea pigs).

Inhalation LC₅₀ for rats >2.81 mg/l (*EU Rev. Rep.*).

NOEL (24 mo) for rats 70 ppm; (12 mo) for rats 200 ppm; (90 d) for rats 200 ppm.

ADI/RfD (EC) 0.03 mg/kg b.w. [2003].

Other Non-mutagenic *in vitro* and *in vivo*.

EC classification N; R50, R53

MefenpyrDiethyl Technical Substance:

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

Skin and eye Acute percutaneous LD₅₀ for rats >4000 mg/kg. Non-irritating to skin and eyes (rabbits). Not a skin sensitiser (guinea pigs).

Inhalation LC₅₀ (4 h) for rats >1.32 mg/l.

NOEL (2 y) for rats 49, mice 71 mg/kg b.w. daily.

ADI/RfD (BfR) 0.03 mg/kg b.w. [2003].

Other Non-mutagenic *in vitro* and *in vivo*.

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12. ECOLOGICAL INFORMATION

Amidosulfuron Technical Substance:

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

Skin and eye Acute percutaneous LD₅₀ for rats > 5000 mg/kg.

Inhalation LC₅₀ (4 h) for rats > 1.8 mg/l air.

NOEL (2 y) for male rats 400 ppm diet (19.45 mg/kg b.w. daily).

ADI/RfD (EC) 0.2 mg/kg b.w. [2007].

Other Non-teratogenic and non-mutagenic.

IodosulfuronMethylSodium Technical Substance:

Birds Oral LD₅₀ for bobwhite quail > 2000 mg/kg. Dietary LC₅₀ for bobwhite quail > 5000 ppm (*EU Rev. Rep.*).

Fish LC₅₀ (96 h) for rainbow trout and bluegill sunfish > 100 mg/l.

Daphnia EC₅₀ (48 h) > 100 mg/l (*EU Rev. Rep.*).

Algae E_rC₅₀ (96 h) 0.152 mg/l.

Other aquatic spp. EC₅₀ (14 d) for *Lemna gibba* 0.8 μ g/l.

Bees LD₅₀ (oral) > 80 μ g/bee; (contact) > 150 μ g/bee (*EU Rev. Rep.*).

Worms LC₅₀ > 1000 mg/kg dry soil (*EU Rev. Rep.*).

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MefenpyrDiethyl Technical Substance:

Birds Acute oral LD₅₀ for Japanese quail >2000 mg/kg.

Fish LC₅₀ (96 h) for carp 2.4, rainbow trout 4.2 mg/l.

Daphnia LC₅₀ (48 h) 5.9 mg/l.

Algae E_bC₅₀ (96 h) for *Navicula pelliculosa* 1.65 mg/l; (72 h) for *Scenedesmus subspicatus* 5.8 mg/l.

Other aquatic spp. EC₅₀ for *Lemna gibba* >12 mg/l.

Bees LD₅₀ (oral, 48 h) >900 µg/bee; (contact) >700 µg/bee.

Worms LC₅₀ (14 d) for *Eisenia foetida* >1000 mg/kg soil.

13. DISPOSAL INFORMATION

Product : Wastes should be 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 be properly disposed. Uncontaminated packaging should be disposed of as hazardous waste.

14. TRANSPORT INFORMATION

ADR/RID/ADNR

UN-No. : 3082

Hazard Signal : 9

Packaging Group : III

Property of the product : UN 3082 ENVIRONMENTAL HAZARDOUS SUBSTANCE, LIQUID N.O.S. (CONTAINING AMIDOSULFURON, IODOSULFURONMETHYLSODIUM VE MEFENPYRDIETHYL)



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IMDG

UN-No. : 3082

Class : 9

Packaging Group : III

EMS : -

Marine Pollutant : Yes

Property of the product : UN 3082 ENVIRONMENTAL HAZARDOUS
SUBSTANCE, LIQUID N.O.S. (CONTAINING NICOSULFURON)

IATA

UN-No. : 3082

Class : 9

Packaging Group : III

Property of the product : UN 3082 ENVIRONMENTAL HAZARDOUS
SUBSTANCE, LIQUID N.O.S. (CONTAINING NICOSULFURON)

15. REGULATORY INFORMATION

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Hazard Signal and Symbol:



Xn: Harmful



N: Dangerous for the environment

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Hazardous Substances

Containing Amidosulfuron, IodosulfuronMethylSodium ve MefenpyrDiethyl.

Risk Phrases

Physicochemical:-

Health:

R65 : Harmful: may cause lung damage if swallowed

Environment

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

Safety Phrases:

S1/2 : Keep locked up and out of the reach of children

S 9 : Keep container in a well-ventilated place

S29 : Do not empty into drains.

S 56 : Dispose of this material and its container at hazardous or special waste collection point.

S 62: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label where possible

Important Labeling:

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

16. OTHER INFORMATIONS

N : Dangerous for the environment

Xi : Irritant

Xn : Harmful

Risk phrases mentioned in Section 2:

R38 : Irritating to eyes and skin

R41 : Risk of serious damage to eyes

R50 : Very toxic to aquatic organisms.

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R53 : May cause long-term adverse effects in aquatic environments.

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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.