

SAFETY DATA SHEET (SDS)

TITLE: FOSTHIAZATE 100 GR

1.0 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY / UNDERTAKING

1.1 Product Identifier

Product Name : AG FOSTHIAZATE 100 GR
 Common Name : FosthiazatE 100 g/kg GR
 CAS No. : 98886-44-3
 Index No. : N/A

1.2 Relevant identified uses of the substance: Insecticide

1.3 Details of the Manufacturer / Supplier of the safety data sheet:

Supplier AGROMEC SARL
 P.O.Box: 462
 Jounieh, Lebanon
 Tel +961 9 226874
 E-mail agromec@agromec-international.com
 Webpage www.agromec-international.com

1.4 Emergency Phone Number (24 hours)

+961 3 980599

2.0 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 3

H301: Toxic if swallowed.

Skin sensitisation, Category 1


H317: May cause an allergic skin reaction.

Chronic aquatic toxicity, Category 2

H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

				
Hazard pictograms	:			
Signal word	:	Danger		
Hazard statements	:	H301 Toxic if swallowed. H317 May cause an allergic skin reaction. H411 Toxic to aquatic life with long lasting effects.		
Supplemental Hazard Statements	:	EUH070 Toxic by eye contact. EUH401 To avoid risks to human health and the environment, comply with the instructions for use.		
Precautionary statements	:	P102 Keep out of reach of children. P270 Do not eat, drink or smoke when using this product. Prevention: P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth. P362 + P364 Take off contaminated clothing and wash it before reuse. P391 Collect spillage. Disposal: P501 Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty triple rinsed clean containers which can be disposed of as non-hazardous waste.		

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. This product contains an anticholinesterase compound. Do not use if under medical advice not to work with such compounds.
May form combustible dust concentrations in air.

3.0 COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
fosthiazate (ISO)	98886-44-3 015-168-00-0	Acute Tox. 3; H301 Acute Tox. 3; H331 Acute Tox. 3; H311 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	$\geq 10 - < 20$

4.0 FIRST AID MEASURES

4.1 Description of first aid measures

- General advice : Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.
- If inhaled : Move the victim to fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Keep patient warm and at rest.
Call a physician or poison control centre immediately.
- In case of skin contact : Take off all contaminated clothing immediately.
Wash off immediately with soap and plenty of water.
If skin irritation persists, call a physician.
Wash off immediately with plenty of water.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses.
Immediate medical attention is required.
- If swallowed : If swallowed, seek medical advice immediately and show this container or label.
Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Poisoning produces effects associated with anticholinesterase activity which may include:
Nausea
Diarrhoea
Vomiting

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Consider taking venous blood for determination of blood cholinesterase activity (use heparin tube)
Administer atropine sulphate as antidote.
Specific antidotes are oximes (e.g. Pralidoxime) or Toxogonin

5.0 FIRE – FIGHTING MEASURE

5.1 Extinguishing media

Suitable extinguishing media : Extinguishing media - small fires
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media - large fires
Alcohol-resistant foam
or
Water spray

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health.

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear full protective clothing and self-contained breathing apparatus.

Further information : Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.

6.0 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Refer to protective measures listed in sections 7 and 8.
Avoid dust formation.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

- Methods for cleaning up : Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).
Do not create a powder cloud by using a brush or compressed air.
Clean contaminated surface thoroughly.
Clean with detergents. Avoid solvents.
Retain and dispose of contaminated wash water.

6.4 Reference to other sections

For disposal considerations see section 13., Refer to protective measures listed in sections 7 and 8.

7.0 HANDLING AND STORAGE

7.1 Precautions for safe handling

- Advice on safe handling : This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents.
- Avoid contact with skin and eyes.
When using do not eat, drink or smoke.
For personal protection see section 8.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs.

7.3 Specific end use(s)

- Specific use(s) : For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

8.0 EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.

The extent of these protection measures depends on the actual risks in use.

Maintain air concentrations below occupational exposure standards.
Where necessary, seek additional occupational hygiene advice.

Personal protective equipment

Eye protection : Tightly fitting safety goggles
Always wear eye protection when the potential for inadvertent eye contact with the product cannot be excluded.

Use eye protection according to EN 166.

Hand protection

Material : Nitrile rubber
Break through time : > 480 min
Glove thickness : 0.5 mm

Remarks : Wear protective gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Remove and wash contaminated clothing before re-use.
Wear as appropriate:
Dust impervious protective suit

Respiratory protection : No personal respiratory protective equipment normally required.
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Protective measures : The use of technical measures should always have priority over the use of personal protective equipment.
When selecting personal protective equipment, seek appropriate professional advice.

9.0 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

: pellets

Colour : red brown

Odour : characteristic

Odour Threshold : No data available

pH : 8.61
Concentration: 1 % w/v

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : No data available

Evaporation rate : No data available

Flammability (solid, gas) : May form combustible dust concentrations in air.

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure :
No data available

Relative vapour density : No data available

Density : 1.13 g/cm³ (25 °C)

Bulk density : 0.435 kg/dm³

Solubility(ies)

Solubility in other solvents : dispersible
Solvent: Water

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : No data available

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

9.2 Other information

No data available

10.0 STABILITY AND RELIABILITY

10.1 Reactivity

None reasonably foreseeable.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions

: No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid

: No decomposition if used as directed.

10.5 Incompatible materials

Materials to avoid

: None known.

10.6 Hazardous decomposition products

Hazardous decomposition products

: No hazardous decomposition products are known.

11.0 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Information on likely routes of exposure

: Ingestion
Inhalation
Skin contact
Eye contact

Acute toxicity

Product:

Acute oral toxicity

: LD50 (Rat, male and female): 230 - 440 mg/kg
Remarks: The toxicological data has been taken from products of similar composition.

Acute inhalation toxicity

: Acute toxicity estimate: > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Acute dermal toxicity

: LD50 (Rat): > 2,000 mg/kg

Remarks: The toxicological data has been taken from products of similar composition.

Components:

fosthiazate (ISO):

Acute oral toxicity

: LD50 (Rat, female): 57 mg/kg

LD50 (Rat, male): 73 mg/kg

Acute inhalation toxicity

: LC50 (Rat, female): 0.56 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

LC50 (Rat, male): 0.83 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity

: LD50 (Rat, female): 853 mg/kg

LD50 (Rat, male): 2,373 mg/kg

Skin corrosion/irritation

Product:

Result: No skin irritation

Remarks: The toxicological data has been taken from products of similar composition.

Components:

fosthiazate (ISO):

Species: Rabbit

Result: No skin irritation

Serious eye damage/eye irritation

Product:

Result: No eye irritation

Remarks: The toxicological data has been taken from products of similar composition.

Components:

fosthiazate (ISO):

Species: Rabbit

Result: No eye irritation

Respiratory or skin sensitisation

Product:

Result: May cause sensitisation by skin contact.

Components:

fosthiazate (ISO):

Result: May cause sensitisation by skin contact.

Germ cell mutagenicity

Components:

fosthiazate (ISO):

Germ cell mutagenicity- Assessment : Based on available data, the classification criteria are not met.

Carcinogenicity

Components:

fosthiazate (ISO):

Carcinogenicity - Assessment : Based on available data, the classification criteria are not met.

Reproductive toxicity

Components:

fosthiazate (ISO):

Reproductive toxicity - Assessment : Based on available data, the classification criteria are not met.

STOT - single exposure

Components:

fosthiazate (ISO):

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Components:

fosthiazate (ISO):

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Further information

Components:

fosthiazate (ISO):

Remarks: Toxic by eye contact.

12.0 ECOLOGICAL INFORMATION

12.1 Toxicity

Product:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 3.2 mg/l
Exposure time: 48 h

Components:

fosthiazate (ISO):

Toxicity to fish

: LC50 (Oncorhynchus mykiss (rainbow trout)): 114 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.282 mg/l
Exposure time: 48 h

M-Factor (Acute aquatic toxicity) : 1

Toxicity to fish (Chronic toxicity) : NOEC: 1.65 mg/l
Exposure time: 28 d
Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.06 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic toxicity) : 1

12.2 Persistence and degradability

Components:

fosthiazate (ISO):

Stability in water

: Degradation half life: 22 - 49 d
Remarks: Product is not persistent.

12.3 Bioaccumulative potential

Components:

fosthiazate (ISO):

Bioaccumulation

: Species: Lepomis macrochirus (Bluegill sunfish)
Exposure time: 672 h
Bioconcentration factor (BCF): 2.3 - 4.5
Remarks: Low bioaccumulation potential.

Partition coefficient: n-octanol/water : log Pow: 1.752

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment

- : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

Components:

fosthiazate (ISO):

Assessment

- : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

12.6 Other adverse effects

No data available

13.0 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

- | | |
|------------------------|---|
| Product | : Do not contaminate ponds, waterways or ditches with chemical or used container.
Do not dispose of waste into sewer.
Where possible recycling is preferred to disposal or incineration.
If recycling is not practicable, dispose of in compliance with local regulations. |
| Contaminated packaging | : Empty remaining contents.
Triple rinse containers.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers. |
| Waste Code | : uncleaned packagings
150110, packaging containing residues of or contaminated by dangerous substances |

14.0 TRANSPORT INFORMATION

14.1 UN number

- | | |
|------|-----------|
| ADN | : UN 2783 |
| ADR | : UN 2783 |
| RID | : UN 2783 |
| IMDG | : UN 2783 |
| IATA | : UN 2783 |

14.2 UN proper shipping name

- | | |
|-----|--|
| ADN | : ORGANOPHOSPHORUS PESTICIDE, SOLID, TOXIC (FOSTHIAZATE) |
|-----|--|

ADR	: ORGANOPHOSPHORUS PESTICIDE, SOLID, TOXIC (FOSTHIAZATE)
RID	: ORGANOPHOSPHORUS PESTICIDE, SOLID, TOXIC (FOSTHIAZATE)
IMDG	: ORGANOPHOSPHORUS PESTICIDE, SOLID, TOXIC (FOSTHIAZATE)
IATA	: Organophosphorus pesticide, solid, toxic (FOSTHIAZATE)

14.3 Transport hazard class(es)

ADN	: 6.1
ADR	: 6.1
RID	: 6.1
IMDG	: 6.1
IATA	: 6.1

14.4 Packing group

ADN	
Packing group	: III
Classification Code	: T7
Hazard Identification Number	: 60
Labels	: 6.1
ADR	
Packing group	: III
Classification Code	: T7
Hazard Identification Number	: 60
Labels	: 6.1
Tunnel restriction code	: (E)
RID	
Packing group	: III
Classification Code	: T7
Hazard Identification Number	: 60
Labels	: 6.1
IMDG	
Packing group	: III
Labels	: 6.1
EmS Code	: F-A, S-A
IATA (Cargo)	
Packing instruction (cargo aircraft)	: 677
Packing instruction (LQ)	: Y645
Packing group	: III
Labels	: Toxic
IATA (Passenger)	
Packing instruction (passenger aircraft)	: 670
Packing instruction (LQ)	: Y645

Packing group : III
Labels : Toxic

14.5 Environmental hazards

ADN

Environmentally hazardous : yes

ADR

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

15.0 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable
: Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
H2	ACUTE TOXIC	50 t	200 t
E2	ENVIRONMENTAL HAZARDS	200 t	500 t

Other regulations:

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Use plant protection products safely. Always read the label and product information before use.

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.



15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

16.0 OTHER INFORMATION

The information contained herein relates only to the specified material identified. AGROMEC, believes that such information is accurate and reliable as of the data of this material safety data sheet, but no representation, guarantee or warranty, expressed or implied, is made as to the accuracy, reliability, or completeness of the information. AGROMEC urges persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.