



SAFETY DATA SHEET

Florasulam 2,4-D 6.25 300 SE

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Version 2

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H-0428-RAII 16547 9503081 AG-FD1-306 SE

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Florasulam 2,4-D 6.25 300 SE

Synonyms 2,4-D 300 Florasulam 6.25 SE

Pure substance/mixture Mixture

Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Herbicide
Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address ADAMA Agan Ltd
P.O.B. 262
ASHDOD Israel

For further information, please contact

Email address SDS@ADAMA.COM

Emergency Telephone

Emergency Telephone +972-03-6106666 Subscription no. 36789 (ADAMA Makhteshim Ltd.)

Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Skin sensitization Category 1 - (H317)
Acute aquatic toxicity Category 1 - (H400)
Chronic aquatic toxicity Category 1 - (H410)

Label Elements

Hazard pictograms



Signal word Warning

Hazard Statements H317 - May cause an allergic skin reaction
H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements P102 - Keep out of reach of children
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302 + P352 - IF ON SKIN: Wash with plenty of water/...
P501 - Dispose of contents/ container to an approved waste disposal plant

Other Hazards
No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical Name	Weight-%	CAS No	EC No	GHS Classification	M-Factor
2,4-D ester	42-47	1928-43-4	217-673-3	Acute Tox. 4 (H302) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	M=1 M=1
Florasulam	0.5-1	145701-23-1		Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	M=100 M=100

Section 4: FIRST AID MEASURES

First aid measures

General advice In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection!.

Inhalation Remove to fresh air. If symptoms persist, call a physician.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Ingestion Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.

Self-protection of the first aider Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms None known

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

No information available.

Special hazards arising from the substance or mixture

No specific hazard known.

Advice for firefighters

In the event of fire, wear self-contained breathing apparatus

In the event of fire and/or explosion do not breathe fumes.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Use personal protective equipment as required. Avoid contact with eyes and skin.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for cleaning up

Take up mechanically, placing in appropriate containers for disposal.

Reference to other sections

Other Information

See also section 8,13

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Use personal protective equipment as required. Use only with adequate ventilation.

General Hygiene Considerations

When using do not eat, drink or smoke. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep out of the reach of children. Keep container tightly closed. Keep containers tightly closed in a cool, well-ventilated place.

Specific end use(s)

Risk Management Methods (RMM)

The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

National occupational exposure limits

Chemical Name	European Union	United Kingdom	France	Spain	Germany
2,4-D ester 1928-43-4					TWA: 1 mg/m ³ Ceiling / Peak: 8 mg/m ³ Skin
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
2,4-D ester 1928-43-4	Skin STEL 4 mg/m ³ TWA: 1 mg/m ³	Skin STEL: 8 mg/m ³ TWA: 1 mg/m ³			

Exposure controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

- Eye/face protection** Tight sealing safety goggles.
- Hand Protection** Gloves made of plastic or rubber.
- Body Protection** Suitable protective clothing.
- Respiratory protection** Use only with adequate ventilation.

General Hygiene Considerations When using do not eat, drink or smoke. Wash contaminated clothing before reuse.

Environmental exposure controls Do not allow into any sewer, on the ground or into any body of water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

<u>Property</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Appearance			
Physical state	: Liquid		
Color	: white		
Odor	: characteristic		
Odor threshold	: No data available		
pH	: 3.5 - 5.5	CIPAC MT 75.3	solution (1 %)
Melting point/freezing point °C	: ----		Not Applicable
Boiling point/boiling range °C	: No data available		
Flash point °C	: > 100		aqueous solution
Evaporation rate	: Not Applicable		
Flammability (solid, gas)	: Not applicable for liquids		
Upper/lower flammability or explosive limits	: No data available		
Vapor pressure kPa	: ----		Not Applicable
Vapor density	: No data available		
Relative density	: 1.05 - 1.09	CIPAC MT 3.3	g/ml, 20 °C
Solubility(ies) mg/l	: ----		Not Applicable
Partition Coefficient (n-octanol/water) Log Pow	:		See Section 12 for more information
Autoignition temperature °C	: 410	EEC A.15	

Decomposition temperature °C	: No data available	
Kinematic viscosity mm ² /s 40 °C	: ----	No data available
Explosive properties	: Not an explosive	EEC A.14
Oxidizing properties	: Not oxidizing	EEC A.21

Other Information

Bulk density g/ml	: ----	Not Applicable
Surface tension mN/m	: 34.1	

Section 10: STABILITY AND REACTIVITY

Reactivity

Not available.

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible Materials

No information available

Hazardous Decomposition Products

None under normal use conditions.

Section 11: TOXICOLOGY INFORMATION

Information on toxicological effects

Acute toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Oral LD50 mg/kg	: > 2000	Rat	OECD 423	
Dermal LD50 mg/kg	: > 2000	Rat	OECD 402	
Inhalation LC50 mg/l/4h	: > 5.7	Rat	OECD 436	
Skin corrosion/irritation	: Non-irritating to the skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	: Not irritating to eyes	Rabbit	OECD 405	
Respiratory/skin sensitization	: Skin sensitizer	Guinea pig	OECD 406	

Chronic toxicity

Germ cell mutagenicity

Chemical Name	
2,4-D ester	: Not classified
Florasulam	: Not classified

Carcinogenicity

Chemical Name	.
2,4-D ester	: Not Carcinogenic
Florasulam	: Not Carcinogenic

Reproductive toxicity .

Chemical Name

2,4-D ester : Not toxic for the reproductive system
 Florasulam : Not toxic for the reproductive system

STOT - single exposure

Chemical Name

2,4-D ester : Not available
 Florasulam : No data available

STOT - repeated exposure

Chemical Name

2,4-D ester : Not available
 Florasulam : No data available

Aspiration hazard

Chemical Name

2,4-D ester : Not available
 Florasulam : No data available

Section 12: ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity

Acute toxicity	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish 96-hour LC50 mg/l	: > 100	Rainbow trout	OECD 203	
Crustacea 48-hour EC50 mg/l	: > 100	Daphnia magna	OECD 202	
Algae 72-hour EC50 mg/l	: 0.485	P. subcapitata	OECD 201	
Other plants EC50 mg/l	: 0.110	Lemna gibba	OECD 221	7 days

Terrestrial Toxicity

Birds Oral LD50 mg/kg

Chemical Name

2,4-D ester : > 633 Japanese quail
 Florasulam : 1046 C. coturnix

Bees Oral LD50 µg/bee

Chemical Name

2,4-D ester : 100
 Florasulam : > 100

Persistence and degradability

Abiotic Degradation

Water DT50 days

Chemical Name

2,4-D ester : 0.1 OECD 308
 Florasulam : 98 - 100 pH 9, 25 ° C

Soil DT50 days

Chemical Name

2,4-D ester : 1.4 OECD 307
 Florasulam : 0.7 - 4.5 aerobic, 20 ° C

Biodegradation

Chemical Name

2,4-D ester : Not available
 Florasulam : Not readily biodegradable

Bioaccumulative potential

Partition Coefficient (n-octanol/water) Partition Coefficient (n-octanol/water) Log Pow	Values	Method	Remarks
Chemical Name			
2,4-D ester	: 5.78	OECD 121	25° C
Florasulam	: -1.22		pH 7
Bioconcentration factor (BCF)			
Chemical Name			
2,4-D ester	:		Not available
Florasulam	: 0.8 - 2.2		

Mobility in soil

Adsorption/Desorption	Values	Method	Remarks
Chemical Name			
2,4-D ester	: 84540	OECD 121	Koc
Florasulam	: 4 - 54		Koc

Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB

Other adverse effects

No information available.

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Improper disposal or reuse of this container may be dangerous and illegal.
Other Information	Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORTATION INFORMATION

IMDG/IMO

UN/ID No *	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D ester)
Hazard Class	9
Packing Group	III
Marine pollutant	Yes
Special precautions for user	

RID/ADR

UN/ID No *	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D ester)
Hazard Class	9
Packing Group	III
Environmental hazard	Yes
Special precautions for user	

ICAO/IATA

UN/ID No *	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D ester)
Hazard Class	9
Packing Group	III
Environmental hazard	Yes
Special precautions for user	
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not Applicable



* Note: UN3077 & UN3082 – These products may be transported as non-dangerous goods under the special provisions of IMDG Code 2.10.2.7; ADR SP375 and ICAO/IATA A197 when packed in single or inner packaging of up to 5L for liquids or 5 kg or less for solids.

Section 15: REGULATORY INFORMATION

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

Section 16: OTHER INFORMATION

Revision Note Changes made to the last version are labeled with this sign ***.

List of Acronyms

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CAS Number - Chemical Abstracts Service number
EC Number - EINECS and ELINCS Number
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
OECD - Organization for Economic Co-operation and Development
PBT - Persistent, Bioaccumulative and Toxic substance
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
STOT - Specific Target Organ Toxicity
vPvB - Very Persistent and Very Bioaccumulative

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet