



SAFETY DATA SHEET

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) Annex II

FSG 01095 H

Revision Date 13-Mar-2019

Version 3

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

1.1. Product identifier

FSG 01095 H

Synonyms

Ethofumesate 150 Metamitron 350 SC

Pure substance/mixture

Mixture

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

Recommended Use

Herbicide

Uses advised against

No information available

1.3. 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

1.4. Emergency telephone number

Emergency Telephone

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

Section 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazardous to the Aquatic

Category 2 - (H411)

Environment - Chronic Hazard

2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms

**Hazard Statements**

H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements

P102 - Keep out of reach of children

P501 - Dispose of contents/ container to an approved waste disposal plant

EU Specific Hazard Statements

EUH208 - Contains 1,2-Benzisothiazolin-3-one. May produce an allergic reaction

EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

Additional phrases for PPP

SP1 - Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

2.3. Other hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Chemical Name	Weight-%	CAS No	EC No	Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	M-Factor	REACH Registration Number
Metamitron	29-33	41394-05-2	255-349-3	613-129-00-8	Acute Tox. 4 (H302) Aquatic Acute 1 (H400)	M=1	-
Ethofumesate	11-15	26225-79-6	247-525-3	607-314-00-2	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	M=1 M=1	-
Propane-1,2-diol	3-6	57-55-6	200-338-0	-	-		-
Poly(oxy-1,2-ethanediyl), .alpha.-[tris(1-phenylethyl)phenyl]-.omega.-hydroxy-	<2	99734-09-5	-	-	Aquatic Chronic 3 (H412)		-
1,2-Benzisothiazolin-3-one	<0.03	2634-33-5	220-120-9	613-088-00-6	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Acute 1 (H400)		-

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of 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 breathing is irregular or stopped, administer artificial respiration. Call a physician.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.

Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing 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.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms None known.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

No information available.

5.2. Special hazards arising from the substance or mixture

No specific hazard known.

5.3. 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

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

Use personal protective equipment as required.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

Other Information

See also section 8,13

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling**Advice on safe handling**

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.

General Hygiene Considerations

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

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

7.3. 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**8.1. Control parameters**

Chemical Name	European Union	United Kingdom	France	Spain	Germany
Propane-1,2-diol 57-55-6		STEL: 450 ppm STEL: 1422 mg/m ³ STEL: 30 mg/m ³ TWA: 150 ppm TWA: 474 mg/m ³ TWA: 10 mg/m ³			
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Propane-1,2-diol 57-55-6				TWA: 25 ppm TWA: 79 mg/m ³ STEL: 37.5 ppm STEL: 118.5 mg/m ³	TWA: 150 ppm TWA: 470 mg/m ³ TWA: 10 mg/m ³

8.2. Exposure controls**Engineering Controls**

Ensure adequate ventilation, especially in confined areas.

**Personal protective equipment
Eye/face protection**

Tight sealing safety goggles.

Hand Protection

Suitable chemical resistant gloves (EN 374) also with prolonged, direct contact (recommendation: protection index 6, corresponding > 480 minutes Permeability time (permeation) according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm).

Body Protection

Use suitable protective clothing and equipment if required, such as safety goggles certified to EN 166, gloves certified to EN 374, protective boots certified to EN 13832, and/or a water repellent woven coverall with 65% polyester and 35 % cotton.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

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**9.1. Information on basic physical and chemical properties**

<u>Property</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Appearance			
Physical state	: Liquid		
Color	: white to beige		
Odor	: Sour		
Odor threshold	: No data available		
pH	: 6 - 7	CIPAC MT 75	solution (1 %)
Melting point/freezing point °C	: ----		Not Applicable
Boiling point/boiling range °C	: ----		Not Applicable
Flash point °C	: 104	EEC A.9	
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	: 1.09 - 1.19	OECD 109	20 °C
Solubility(ies) mg/l	: ----		Not Applicable
Partition Coefficient (n-octanol/water) Log Pow	:		See Section 12 for more information
Autoignition temperature °C	: 485	EEC A.15	
Decomposition temperature °C	: ----		No data available
Kinematic viscosity mm ² /s 40 °C	: 61.4	OECD 114	40 °C
Explosive properties	: Not an explosive		
Oxidizing properties	: Not oxidizing		
9.2. Other information			
Bulk density g/ml	: ----		Not Applicable
Surface tension mN/m	: 39.3	EEC A.5	20 °C

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

No information available

10.6. Hazardous decomposition products

None under normal use conditions.

Section 11: TOXICOLOGY INFORMATION

11.1. 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	Maximum attainable concentration
Dermal LD50 mg/kg	: > 4000	Rat	OECD 402	
Inhalation LC50 mg/l/4h	: > 1.46	Rat	OECD 403	
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	: Not a skin sensitizer	Guinea pig	OECD 406	
Chronic toxicity				
Germ cell mutagenicity				
Chemical Name				
Metamitron	: Not classified			
Ethofumesate	: Not classified			
Carcinogenicity				
Chemical Name				
Metamitron	: Not Carcinogenic			
Ethofumesate	: Not Carcinogenic			
Reproductive toxicity				
Chemical Name				
Metamitron	: Not toxic for the reproductive system			
Ethofumesate	: Not toxic for the reproductive system			
STOT - single exposure				
Chemical Name				
Metamitron	: Not available			
Ethofumesate	: No data available			
STOT - repeated exposure				
Chemical Name				
Metamitron	: Not available			
Ethofumesate	: No data available			
Aspiration hazard				
Chemical Name				
Metamitron	: Not available			
Ethofumesate	: No data available			

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Aquatic toxicity

Acute toxicity				
	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish 96-hour LC50 mg/l	: 141	Oncorhynchus mykiss	OECD 203	
Crustacea 48-hour EC50 mg/l	: 62.4	Daphnia magna	OECD 202	
Algae 72-hour EC50 mg/l	: 2.83	Scenedesmus subspicatus	OECD 201	
Other plants EC50 mg/l	: 2.32	M. spicatum		14 days
Chronic aquatic toxicity				
	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish NOEC mg/l	:			No data available
Crustacea NOEC mg/l	:			No data available
Algae NOEC mg/l	: 2.92	Scenedesmus subspicatus	OECD 201	

Other plants NOEC mg/l	:	0.305	M. spicatum	14 days
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Terrestrial Toxicity**Birds Oral LD50 mg/kg****Chemical Name**

Metamitron	:	1302	Japanese quail	OECD 401
Ethofumesate	:	> 2000	A. platyrhynchos	OECD 401

Bees Oral LD50 µg/bee**Chemical Name**

Metamitron	:	> 97.2		OECD 213
Ethofumesate	:	> 50		OECD 213

12.2. Persistence and degradability**Abiotic Degradation****Water DT50 days****Chemical Name**

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Metamitron	: 10.8 - 11.4	BBA IV: 5-1	pH 8, 20 ° C
Ethofumesate	: 105 - 242		

Soil DT50 days**Chemical Name**

Metamitron	: 2 - 45
Ethofumesate	: 47 - 211

Biodegradation**Chemical Name**

Metamitron	:	Not readily biodegradable	OECD 301 D
Ethofumesate	:	Not readily biodegradable	

12.3. Bioaccumulative potential**Partition Coefficient (n-octanol/water) Log Pow****Chemical Name**

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Metamitron	: 0.85	OECD 107	21 ° C
Ethofumesate	: 2.7		pH 6.4, 20-25 ° C

Bioconcentration factor (BCF)**Chemical Name**

Metamitron	:		Not available
Ethofumesate	:	----	No data available

12.4. Mobility in soil**Adsorption/Desorption****Chemical Name**

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Metamitron	: 122.3		Koc
Ethofumesate	: 147 - 132		Koc

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. 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**

14.1 UN/ID No *	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Metamitron; Ethofumesate)
14.3 Hazard Class	9
14.4 Packing Group	III
14.5 Marine pollutant	Yes
14.6 Special precautions for user	

RID/ADR

14.1 UN/ID No *	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Metamitron; Ethofumesate)
14.3 Hazard Class	9
14.4 Packing Group	III
14.5 Environmental hazard	Yes
14.6 Special precautions for user	
14.7 Tunnel restriction code	-

ICAO/IATA

14.1 UN/ID No *	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Metamitron; Ethofumesate)
14.3 Hazard Class	9
14.4 Packing Group	III
14.5 Environmental hazard	Yes
14.6 Special precautions for user	
14.7 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**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Trade name	Registration number	Registration date
Not Applicable	Not Applicable	Not Applicable

15.2. Chemical safety assessment

A chemical safety assessment according to regulation (EC) No. 1907/2006 is not required. A risk assessment was performed according to directive (EC) No. 91/414 or according to regulation (EC) No. 1107/2009.

Section 16: OTHER INFORMATION**Full text of H-Statements referred to under sections 2 and 3**

H290 - May be corrosive to metals
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H411 - Toxic to aquatic life with long lasting effects

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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

Process of classification evaluation in accordance with CLP regulation.**Classification of the mixture****Classification procedure****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