



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
The Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Clodinafop-propargyl 100 EC

Revision date 17-Jun-2021

Version 1 Supersedes Date: 17-Jun-2021

Product Code(s)
HRB01146-GHS
ADM.01750.H.2.B

Print Date 17-Jun-2021

1. Identification

Product identifier

Clodinafop-propargyl 100 EC

Other means of identification

Synonyms Atops 100

Recommended use of the chemical and restrictions on use

Recommended use Herbicide; Restricted to professional users
Uses advised against No information available

Detailed information about the manufacturer, supplier, and/or importer

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

Emergency telephone number

Emergency Telephone ADAMA Makhteshim: + 972 8 6560800/801 ; + 972 8 6296713/714
ADAMA Agan : + 972 8 8515341

E-mail address SDS@ADAMA.COM

2. Hazard(s) identification

Classification of the substance or mixture

Acute toxicity - Oral	Category 5 - (H303)
Serious eye damage/eye irritation	Category 2 - (H319)
Specific target organ toxicity (repeated exposure)	Category 2 - (H373)
Acute aquatic toxicity	Category 2 - (H401)
Chronic aquatic toxicity	Category 2 - (H411)

Label elements

Signal word Warning

Hazard pictograms**Hazard statements**

H303 - May be harmful if swallowed
 H319 - Causes serious eye irritation
 H373 - May cause damage to organs through prolonged or repeated exposure
 H411 - Toxic to aquatic life with long lasting effects

Precautionary statements

P102 - Keep out of reach of children
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P264 - Wash face, hands and any exposed skin thoroughly after handling
 P280 - Wear eye protection/ face protection
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P501 - Dispose of contents/ container to an approved waste disposal plant

Other hazards

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

3. Composition/information on ingredients

Substance

Not applicable

Mixture**Synonyms**

Atops 100

Chemical name	CAS No	Weight-%	EC No	INTERNATIONAL GHS CLASSIFICATION	M-Factor
Clodinafop-propargyl	105512-06-9	7-12	600-662-6	Acute Tox. 4 (H302) Skin Sens. 1 (H317) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	M=1 M=1
cloquintocet-mexyl	99607-70-2	1- 4	619-447-3	Eye Irrit. 2 (H319) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	M=1
Hydrocarbons, C10-C13, aromatics, <1% naphthalene	-	64-72	922-153-0	Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411)	
Propylene carbonate	108-32-7	8-12	203-572-1	Eye Irrit. 2 (H319)	
Poly(oxy-1,2-ethanediyl), .alpha.-[tris(1-phenylethyl)phenyl]-.omega.-hydroxy-	99734-09-5	6-10	619-457-8	Aquatic Chronic 3 (H412)	

4. First-aid measures

Description of necessary 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. Call a physician immediately.
Ingestion	Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.

For emergency responders

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

Most important symptoms/effects, acute and delayed

Symptoms None known.

Indication of immediate medical attention and special treatment needed, if necessary

Note to physicians Treat symptomatically.

5. Fire-fighting measures**Suitable Extinguishing Media**

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

Small Fire	Dry chemical, CO ₂ , water spray or regular foam
Large Fire	Do not scatter spilled material with high pressure water streams Dike fire-control water for later disposal Water spray, fog or regular foam Move containers from fire area if you can do it without risk

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical

Specific hazards arising from the chemical No information available.

A fire or explosion Some may burn but none ignite readily
Containers may explode when heated
Some may be transported hot

Specific/special fire-fighting measures

Specific/special fire-fighting measures No information available.

Special protective equipment and precautions for fire-fighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
Health risks	Contact may cause burns to skin and eyes Runoff from fire control may cause pollution Fire may produce irritating, corrosive and/or toxic gases Inhalation of material may be harmful Some liquids produce vapors that may cause dizziness or suffocation
Spill or Leak	Do not touch or walk through spilled material Prevent dust cloud Stop leak if you can do it without risk

Environmental precautions

Environmental precautions	See Section 12 for additional Ecological Information.
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Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Pick up and transfer to properly labeled containers.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.
Other information	Refer to protective measures listed in Sections 7 and 8.

7. Handling and storage

Preventive measures for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.
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Precautions for safe handling

General hygiene considerations	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.
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8. Exposure controls/personal protection

Control parameters

Exposure guidelines	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies
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Appropriate engineering controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection Wear suitable gloves.

Eye/face protection If splashes are likely to occur, wear safety glasses with side-shields.

Skin and body protection Wear suitable protective clothing.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained.

9. Physical and chemical properties

Information on basic physical and chemical properties

<u>Property</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Appearance			
Physical state	: liquid		
Color	: amber		
Odor	: Aromatic		
Odor threshold	: No data available		
pH	: 6 - 8	CIPAC MT 75.3	
Melting point / freezing point °C	: No data available		
Boiling point / boiling range °C	: No data available		
Flash point °C	: 97.6	ISO 2719:2002 E	
Evaporation rate	: No data available		
Flammability (solid, gas)	: Not applicable		
Upper/lower flammability or explosive limits	: No data available		
Vapor pressure kPa	: No data available		
Vapor density	: No data available		
Relative density	: 1 - 1.1	EEC A.5	
Solubility(ies) mg/l	: No data available		
Partition coefficient Log Pow	:		See Section 12 for additional Ecological Information
Autoignition temperature °C	: No data available		
Decomposition temperature °C	: No data available		
Kinematic viscosity mm²/s 40 °C	: 32	ISO 2431 (1993)	
Explosive properties	: Not an explosive		
Oxidizing properties	: No data available		
Surface tension	: No data available		
Particle Size	: Not applicable		
<u>Other information</u>			
Bulk density g/ml	: Not applicable		

10. Stability and reactivity

Reactivity

Reactivity No information available.

Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Conditions to avoid

Conditions to avoid None known based on information supplied.

Incompatible materials

Incompatible materials None known based on information supplied.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

11. Toxicological informationInformation on toxicological effectsAcute 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 LC50	: > 5.30	Rat	OECD 403	
Skin corrosion/irritation	: Non-irritating to the skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	: Irritating to eyes	Rabbit	OECD 405	
Sensitization	: Not a sensitizer	Guinea pig	OECD 406	

Chronic toxicity**Germ cell mutagenicity****Chemical name**

Clodinafop-propargyl : Not classified
cloquintocet-mexyl : Not classified

Carcinogenicity**Chemical name**

Clodinafop-propargyl : Not Carcinogenic
cloquintocet-mexyl : Not Carcinogenic

Reproductive toxicity**Chemical name**

Clodinafop-propargyl : Not toxic for the reproductive system
cloquintocet-mexyl : Not toxic for the reproductive system

STOT - Single Exposure**Chemical name**

Clodinafop-propargyl : No data available
cloquintocet-mexyl : No data available

STOT - Repeated Exposure**Chemical name**

Clodinafop-propargyl : H373 - May cause damage to organs through prolonged or repeated exposure
 cloquintocet-mexyl : H373 - May cause damage to organs through prolonged or repeated exposure

Aspiration hazard**Chemical name**

Clodinafop-propargyl : No data available
 cloquintocet-mexyl : No data available

12. Ecological information**Ecotoxicity****Aquatic toxicity****Acute toxicity**

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish 96-hour LC50 mg/l	:			No data available
Crustacea 48-hour EC50 mg/l	:			No data available
Algae 72-hour EC50 mg/l	:			No data available
Other plants EC50 mg/l	:			No data available

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	:	No data available		
Other plants NOEC mg/l	:	No data available		

Terrestrial Toxicity**Birds Oral LD50 mg/kg****Chemical name**

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Clodinafop-propargyl	: > 2000	Bobwhite quail	EPA-OPPTS 850.2100	
cloquintocet-mexyl	: > 2000	Mallard duck		

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

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Clodinafop-propargyl	: > 104	OECD 213 OECD 214	
cloquintocet-mexyl	: > 100		

Abiotic Degradation**Water DT50 days****Chemical name**

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Clodinafop-propargyl	: < 2		pH 8.16-8.39, 20 ° C
cloquintocet-mexyl	: < 1		

Soil DT50 days**Chemical name**

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Clodinafop-propargyl	: 1		
cloquintocet-mexyl	: 0.5 - 2.4		

Biodegradation**Chemical name**

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Clodinafop-propargyl	: Not readily biodegradable		
cloquintocet-mexyl	: No data available		

Log Pow**Chemical name**

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>

Clodinafop-propargyl	: 3.4	EEC A.8	20° C
cloquintocet-mexyl	: 5.03		

Bioconcentration factor (BCF)**Chemical name**

Clodinafop-propargyl	: 190 - 210	whole fish
cloquintocet-mexyl	: ----	No data available

Adsorption/Desorption**Chemical name**

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Clodinafop-propargyl	: 1156		KOC
cloquintocet-mexyl	: ----		Low mobility in soil

13. Disposal considerations**Disposal methods**

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Improper disposal or reuse of this container may be dangerous and illegal.

14. Transport information**ADR**

14.1 UN number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10-C13, aromatics, <1% naphthalene, Clodinafop-propargyl)
14.3 Transport hazard class(es)	9
Labels	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10-C13, aromatics, <1% naphthalene, Clodinafop-propargyl), 9, III
14.5 Environmental hazard	Yes
14.6 Special Precautions for Users	
Special Provisions	274, 335, 601, 375
Classification code	M6

RID

14.1 UN number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10-C13, aromatics, <1% naphthalene, Clodinafop-propargyl)
14.3 Transport hazard class(es)	9
Labels	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10-C13, aromatics, <1% naphthalene, Clodinafop-propargyl), 9, III
14.5 Environmental hazard	Yes
14.6 Special Precautions for Users	
Special Provisions	274, 335, 375, 601
Classification code	M6

IMDG

14.1 UN number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10-C13, aromatics, <1% naphthalene, Clodinafop-propargyl), Marine pollutant
14.3 Hazard Class	9

14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10-C13, aromatics, <1% naphthalene, Clodinafop-propargyl), 9, III, Marine pollutant
14.5 Marine pollutant	P
Environmental hazard	Yes
14.6 Special Precautions for Users	
Special Provisions	274, 335, 969
EmS-No	F-A, S-F
IMDG Stowage and segregation	Category A
14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code	No information available

IATA

14.1 UN number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10-C13, aromatics, <1% naphthalene, Clodinafop-propargyl)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10-C13, aromatics, <1% naphthalene, Clodinafop-propargyl), 9, III
14.5 Environmental hazard	Yes
14.6 Special Precautions for Users	
Special Provisions	A97, A158, A197
ERG Code	9L



* 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

15. Regulatory information

Safety, health and environmental regulations specific for the product in question

16. Other information

Full text of H-Statements referred to under section 3

H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H373 - May cause damage to organs through prolonged or repeated exposure
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
H412 - Harmful to aquatic life with long lasting effects

Date of preparation of the SDS No data available

Revision date 17-Jun-2021

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

Key or legend to abbreviations and acronyms used in the safety data sheet

IMDG International Maritime Dangerous Goods (IMDG)
 IATA International Air Transport Association (IATA)
 ADR European Agreement concerning the International Carriage of Dangerous Goods by Road

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

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

The Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Classification of the mixture

H303 - May be harmful if swallowed
 H319 - Causes serious eye irritation
 H373 - May cause damage to organs through prolonged or repeated exposure
 H401 - Toxic to aquatic life
 H411 - Toxic to aquatic life with long lasting effects

Classification procedure

Classification based on Calculation method
 Classification based on test data
 Classification based on Calculation method
 Classification based on Calculation method
 Classification based on Calculation method

Disclaimer

The information provided in this 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