

SAFETY DATA SHEET (SDS)

TITLE: CLETHODIM 120 EC

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

Product Identifier

Identification on the label / Trade name : CIBA CLETHODIM 120 EC
Common Name : Clethodim 120g/l EC
CAS No. : 99129-21-2
EC No. : N/A
REACH registration No. : N/A

Relevant identified uses of the substance and uses advised against:

Agricultural Pesticide

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

Supplier CIBA AGRIPHARMA SARL
78 Boulevard Haussmann
75008 Paris , France
Tel Tel: +33 6 51 39 90 00
E-mail administration@ciba- agripharma.com
Webpage www. ciba- agripharma.com

1.2 Emergency Phone Number (24 hours)

+33 6 51 39 90 00

2.0 HAZARDS IDENTIFICATION

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

Specific target organ toxicity — Single exposure, Category 3, Narcosis

H336

Aspiration hazard, Category 1




H304

Hazardous to the aquatic environment — Chronic Hazard, Category 2

H411

Full text of H statements : see section 16

2.2. Label elements

Hazard pictograms (CLP)	:	  
		<p>GHS07 GHS08 GHS09</p>
CLP Signal word	:	Danger
Hazardous ingredients	:	Hydrocarbons, C10, aromatics, <1% naphthalene; Hydrocarbons, C10-C13, aromatics, <1% naphthalene
Hazard statements (CLP)	:	H304 - May be fatal if swallowed and enters airways H336 - May cause drowsiness or dizziness H411 - Toxic to aquatic life with long lasting effects
Precautionary statements (CLP)	:	P101 - If medical advice is needed, have product container or label at hand P102 - Keep out of reach of children P103 - Read label before use P260 - Do not breathe vapours P270 - Do not eat, drink or smoke when using this product P271 - Use only outdoors or in a well-ventilated area P273 - Avoid release to the environment P280 - Wear eye protection, protective clothing, protective gloves P301+P312 - IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell P331 - Do NOT induce vomiting P391 - Collect spillage P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation
EUH-statements	:	EUH401 - To avoid risks to human health and the environment, comply with the instructions for use EUH066 - Repeated exposure may cause skin dryness or cracking EUH208 - Contains Clethodim. May produce an allergic reaction

2.3. Other hazards

Other hazards not contributing to the classification : SP 1 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).

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

3.0 COMPOSITION/INFORMATION ON INGREDIENTS

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrocarbons, C10, aromatics, <1% naphthalene	(CAS-No.) 64742-94-5 (EC-No.) 918-811-1 (EC Index-No.) 649-424-00-3	5 - 40	STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411

Clethodim	(CAS-No.) 99129-21-2	12 - 15	Acute Tox. 4 (Oral), H302 Skin Sens. 1, H317
Amines, tallow alkyl, ethoxylated, compounds with polyethylene glycol hydrogen sulfate C12-14 alkyl ether	(CAS-No.) 184785-40-8	1 - 10	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318
Tall oil fatty acids, ethoxylated	(CAS-No.) 61791-00-2	0 - 5	Aquatic Chronic 3, H412
Hydrocarbons, C10-C13, aromatics, <1% naphthalene	(EC-No.) 922-153-0 (REACH-no) 01-2119451097-39	0 - 5	Asp. Tox. 1, H304 Aquatic Chronic 2, H411

Full text of H-statements: see section 16

4.0 FIRST AID MEASURES

First-aid measures general	:	Call a physician immediately.
First-aid measures after inhalation	:	Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	:	Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	:	Do not induce vomiting. Call a physician immediately.

5.0 FIRE – FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire: Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

6.0 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures :

Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment :

Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up :

Take up liquid spill into absorbent material.

Other information:

Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information, refer to section 13.

7.0 HANDLING AND STORAGE

7.1. Precautions for safe handling

Precautions for safe handling:

Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray.

Hygiene measures:

Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions:

Store locked up. Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

8.0 EXPOSURE CONTROL/PERSONAL PROTECTION

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Environmental exposure controls:

Avoid release to the environment.

9.0 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: clear.
Colour	: amber.
Odour	: aromatic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 74.9 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 0.927
Density	: 0.927 g/ml
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: < 20.5 mm ² /s
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

10.0 STABILITY AND REACTIVITY

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11.0 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity (oral): Not classified

Acute toxicity (dermal): Not classified

Acute toxicity (inhalation): Not classified

Product	
LD50 oral rat	> 2000 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bw/day
LC50 inhalation rat (mg/l)	> 5.51 mg/l/4h
Clethodim (99129-21-2)	
LD50 oral rat	1133 mg/kg bodyweight
LD50 dermal rat	> 4167 mg/kg bodyweight
LC50 inhalation rat (mg/l)	> 3.25 mg/l/4h
NOAEL, short term, oral, Dog	= 21 mg/kg bw/day (90 days)
Hydrocarbons, C10, aromatics, <1% naphthalene (64742-94-5)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 4688 mg/m ³
Hydrocarbons, C10-C13, aromatics, <1% naphthalene	
LD50 oral rat	> 5000 mg/kg (OCDE 401)
LD50 dermal rabbit	> 2000 mg/kg (OCDE 402)
LD50 dermal	3160 mg/kg
LC50 inhalation rat (mg/l)	> 4778 mg/m ³ (OCDE 403)
Skin corrosion/irritation	: Not classified.
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

12.0 ECOLOGICAL INFORMATION

Acute aquatic toxicity: Not classified

Chronic aquatic toxicity: Toxic to aquatic life with long lasting effects.

Product	
LC50 fish 1	≈ 8.98 mg/l (96 h <i>Oncorhynchus mykiss</i>)
EC50 Daphnia 1	29.4 mg/l (<i>Daphnia magna</i>)
ErC50 (algae)	15.86 mg/l (72h <i>Anabaena flos-aquae</i>)
Clethodim (99129-21-2)	
LC50 fish 1	25 mg/l (96 h <i>Onchorynchus mykiss</i>)
EC50 Daphnia 1	> 100 mg/l (48h <i>Daphnia magna</i>)
Clethodim (99129-21-2)	
ErC50 (algae)	> 12 mg/l (72h <i>Selenastrum capricornutum</i>)
ErC50 (other aquatic plants)	1.9 mg/l (14d <i>Lemna gibba</i> - Fronds)
NOEC chronic fish	3.9 mg/l (<i>Oncorhynchus mykiss</i>)
NOEC chronic crustacea	49 mg/l (21d <i>Daphnia magna</i>)
LD50, avian, acute	> 1640 mg/kg bw/day (<i>Bobwhite quail</i>)

LC50, avian, short term	> 851 mg/kg bw/day ((Mallard duck))
NOEC, avian, Chronic	= 17 mg/kg bw/day ((reproduction) (Bobwhite quail))
LD50, oral, Apis mellifera (bee)	> 43 (µg/bee)
LD50, Dermal, Apis mellifera (bee)	> 51 (µg/bee)
Hydrocarbons, C10, aromatics, <1% naphthalene (64742-94-5)	
LC50 fish 1	2 - 5 mg/l (96h Oncorhynchus mykiss)
EC50 Daphnia 1	3 - 10 mg/l
ErC50 (algae)	11 mg/l (72h Pseudokirchneriella subcapitata)
Hydrocarbons, C10-C13, aromatics, <1% naphthalene	
LC50 fish 1	3.6 mg/l (96h Salmo gairdneri)
EC50 Daphnia 1	1.1 mg/l
ErC50 (algae)	7.9 mg/l (72h Pseudokirchneriella subcapitata)
NOEC chronic algae	0.22 mg/l

13.0 DISPOSAL CONSIDERATIONS

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

14.0 TRANSPORT INFORMATION

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
3082	3082	3082	3082	3082
14.2. UN proper shipping name				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Environmentally hazardous substance, liquid, n.o.s.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport document description				
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((xylene-naphta range solvent)), 9, III, (E)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((xylene-naphta range solvent)), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. ((xylene-naphta range solvent)), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((xylene-naphta range solvent)), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((xylene-naphta range solvent)), 9, III
14.3. Transport hazard class(es)				
9	9	9	9	9
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
No supplementary information available				

14.6. Special precautions for user

- Overland transport

Classification code (ADR)

: M6

Special provisions (ADR)	: 274, 335, 601, 375
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Special packing provisions (ADR)	: PP1
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T4
Portable tank and bulk container special provisions (ADR)	: TP1, TP29
Tank code (ADR)	: LGBV
Vehicle for tank carriage	: AT
Transport category (ADR)	: 3
Special provisions for carriage - Packages	: V12
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13
Hazard identification number (Kemler No.)	: 90
EAC code	: •3Z

15.0 REGULATORY INFORMATION

Contains no REACH substances with Annex XVII restrictions
 Contains no substance on the REACH candidate list
 Contains no REACH Annex XIV substances

16.0 OTHER INFORMATION

Further Information

The information contained herein relates only to the specified material identified. CIBA AGRIPHARMA 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. CIBA AGRIPHARMA urges persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.

This material safety data sheet adopts the provisions of the European Commission Directive 2001/58/EC and Regulations 1272/2008 (CLP) and 453/2010 (REACH).