

CLAYTON PLANT PROTECTION

CLAYTON ENIGMA Safety Data Sheet according to Regulation (EC) No. 1907/2006 and Regulation (EU) No. 453/2010. Version 1/dsc 09/02/2016. This version replaces all previous versions.

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

1.1. Product identifier Clayton Enigma. Synonyms : Propaquizafop 100 EC

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 :

Company : Clayton Plant Protection (UK) Ltd., Bracetown Business Park, Clonee, Dublin15. Ireland.

Tel: (00 353) 1 8210127 www.cpp.ag Email: info@cpp.ag

Section 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

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

Aspiration hazard Category 1 - (H304)

Serious eye damage/eye irritation Category 2 - (H319)

Hazardous to the Aquatic Environment - Chronic Hazard Category 2 - (H411)

Classification according to Directive 67/548/EEC or 1999/45/EC

Full text of R-phrases: see section 16

Xi;R36 - R66 - N;R51-53

2.2. Label elements

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

Hazard pictograms



Signal word	Danger
Hazard Statements	H304 - May be fatal if swallowed and enters airways H319 - Causes serious eye irritation H411 - 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 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P331 - Do NOT induce vomiting P501 - Dispose of contents/ container to an approved waste disposal plant
EU Specific Hazard Statements	EUH066 - Repeated exposure may cause skin dryness or cracking EUH208 - Contains Propaquizafop. 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

2.3. Other hazards : No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Weight %	CAS No	EC No	Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Classification according to 67/548/EEC	M-Factor	REACH Registration Number
Propaquizafop	7-12	111479-05-1	-	-	Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	Xi; R43 N; R50-53		
Propylene carbonate	4-7	108-32-7	203-572-1	607-194-00-1	Eye Irrit. 2 (H319)	Xi; R36		01-21195372 32-48-0000
A fatty alcohol polyglycol ether	34-38	9043-30-5	500-027-2	-	Eye Dam. 1 (H318) Acute Tox. 4 (H302)	Xn; R22 Xi; R41		
Hydrocarbons, C10-C13, aromatics, <1% naphthalene	40-45	N/A	922-153-0	-	Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411) (EUH066)	Xn; R65 R66 N; R51/53		01-21194510 97-39-0005

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

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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 : Do NOT induce vomiting. Immediate medical attention is required. Rinse mouth.

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. Avoid contact with eyes and skin.

Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

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. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for 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. Use only with adequate ventilation. Use with local exhaust ventilation. Do not breathe dust/fume/gas/mist/vapours/spray.

General Hygiene Considerations : When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions : Keep container tightly closed. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labelled containers.

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

Derived No Effect Level (DNEL) : No information available

Predicted No Effect Concentration (PNEC) : No information available.

8.2. Exposure controls

Engineering Controls : Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment : Eye/face protection Tight sealing safety goggles.

Body Protection : Suitable protective clothing, Apron, Gloves made of plastic or rubber.

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General Hygiene Considerations : When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

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

Property	Values	Method	Remarks
Appearance			
Physical state :	Liquid		
Colour :	amber		
Odour :	Aromatic		
Odour threshold :	No data available		
pH :	4.2 - 5.2	CIPAC MT 75.3	
Melting point/freezing point °C :	----		Not Applicable
Boiling point/boiling range °C :	No data available		
Flash point °C :	102.6	CIPAC MT 12	
Evaporation rate :	Not Applicable		
Flammability (solid, gas) :	Not applicable for liquids		
Upper/lower flammability or explosive limits :	No data available		
Vapour pressure kPa :	----		Not Applicable
Vapour density :	No data available		
Relative density :	0.99 - 1.09	CIPAC MT 3.3	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 :	16.2	OECD 114	
Explosive properties :	Not an explosive	EEC A.14	
Oxidizing properties :	Not oxidizing		

9.2. Other information

Bulk density g/ml :	----		Not Applicable
Surface tension mN/m :	26.9	EEC A.5	25 °C

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity : Not 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	Values	Species	Method	Remarks
Oral LD50 mg/kg :	> 2000	Rat	OECD 423	
Dermal LD50 mg/kg :	> 2000	Rat	OECD 402	
Inhalation LC50 mg/l/4h :	> 5.15	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	
Respiratory/skin sensitization :	Not a skin sensitizer	Guinea pig	OECD 40	

Chronic toxicity

Germ cell mutagenicity	Chemical Name	Propaquizafop	: Not classified
Carcinogenicity .	Chemical Name	Propaquizafop	: Not Carcinogenic
Reproductive toxicity .	Chemical Name	Propaquizafop	: Not toxic for the reproductive system
STOT - single exposure	Chemical Name	Propaquizafop	: No data available
STOT - repeated exposure	Chemical Name	Propaquizafop	: No data available
Aspiration hazard	Chemical Name	Propaquizafop	: Not available

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Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Aquatic toxicity

Acute toxicity	Values	Species	Method	Remarks
Fish 96-hour LC50 mg/l :	6.53	Oncorhynchus mykiss		
Crustacea 48-hour EC50 mg/l :	12.9	Daphnia magna	OECD 202	
Algae 72-hour EC50 mg/l :	2.99	D. Subspicatus	OECD 201	Biomass
Other plants EC50 mg/l :	Not available			

Terrestrial Toxicity

Birds Oral LD50 mg/kg				
Chemical Name Propaquizafop :	> 2000	C. virginianus	EPA-FIFRA 71-1	
Bees Oral LD50 µg/ bee				
Chemical Name Propaquizafop :	---			Not toxic to bees

12.2. Persistence and degradability

Abiotic Degradation

Water DT50 days

Chemical Name Propaquizafop :	Values	Method	Remarks
Chemical Name Propaquizafop :	32	EPA-FIFRA 161-2/3	pH 7, 25 ° C

Soil DT50 days

Chemical Name Propaquizafop :	----		No data available
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Biodegradation

Chemical Name Propaquizafop :	Not readily biodegradable	OECD 301 B	
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12.3. Bioaccumulative potential

Partition Coefficient

(n-octanol/water) Log Pow

Chemical Name Propaquizafop :	4.78	OECD 117	25° C
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Bioconcentration factor (BCF)

Chemical Name Propaquizafop :	----		Low
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12.4. Mobility in soil : Chemical Name Propaquizafop : ---- No data available

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.

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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. (Propaquizafop Hydrocarbons, C10-13, aromatics, <1% naphthalene)

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. (Propaquizafop Hydrocarbons, C10-13, aromatics, <1% naphthalene)

Hazard Class 9 Packing Group III Environmental hazard Yes

Special precautions for user

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ICAO/IATA

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(Propaquizafop Hydrocarbons, C10-13, aromatics, <1% naphthalene)

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

Section 15: REGULATORY INFORMATION

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

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 R-phrases referred to under sections 2 and 3	Full text of H-Statements referred to under sections 2 and 3
R22 - Harmful if swallowed	H302 - Harmful if swallowed
R36 - Irritating to eyes	H304 - May be fatal if swallowed and enters airways
R41 - Risk of serious damage to eyes	H317 - May cause an allergic skin reaction
R43 - May cause sensitization by skin contact	H318 - Causes serious eye damage
R65 - Harmful: may cause lung damage if swallowed	H319 - Causes serious eye irritation
R66 - Repeated exposure may cause skin dryness or cracking	H400 - Very toxic to aquatic life
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment	H410 - Very toxic to aquatic life with long lasting effects
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment	H411 - Toxic to aquatic life with long lasting effects
	EUH066 - Repeated exposure may cause skin dryness or cracking

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.