

CLAYTON PLANT PROTECTION

CLAYTON VISTA Safety Data Sheet according to Regulation (EC) No. 1907/2006 and Regulation (EU) No. 453/2010. Version 1/dsc 18/6/2015. This version replaces all previous versions.

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier: Product name : Clayton Vista. Product type : Mixture

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

1.2.1 Relevant identified uses Herbicide

1.2.2 Uses advised against No uses advised against known

1.3 Details of the supplier of the safety data sheet:

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: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class Hazard

Hazard statement category

Acute Tox. 4 H302-Harmful if swallowed.

Skin Sens. 1 H317-May cause an allergic skin reaction.

STOT RE 2 H373-May cause damage to organs through prolonged or repeated exposure.

Aquatic Acute 1 H400-Very toxic to aquatic life.

Aquatic Chronic 1 H410-Very toxic to aquatic life with long lasting effects.

2.1.2 Classification according to Directives 67/548/EEC and 1999/45/EC (including amendments)

Xn, Harmful, R22

Sensitising, R43

Xn, Harmful, R48/22

N, Dangerous for the environment, R50-53

2.2 Label elements

2.2.1 Labelling according to Regulation (EC) 1272/2008 (CLP)

Warning



Hazard statement

H302-Harmful if swallowed.

H317-May cause an allergic skin reaction.

H373-May cause damage to organs through prolonged or repeated exposure.

H410-Very toxic to aquatic life with long lasting effects.

Prevention : P280-Wear protective gloves/protective clothing/eye protection/face protection.

Response : P309+P311-IF exposed or if you feel unwell: Call a POISON CENTRE or doctor/physician.

Disposal

P501-Dispose of contents/container in a safe way.

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

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).

2.3 Other hazards : The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006. The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance. n.a.

3.2 Mixture

Flufenacet (ISO)

Registration number (REACH)

Index

EINECS, ELINCS, NLP

CAS

Content %

Classification according to Directive 67/548/EEC

613-164-00-9

CAS 142459-58-3

30-40

Harmful, Xn, R22

Harmful, Xn, R48/22

Sensitising, R43

Dangerous for the environment, N, R50

Dangerous for the environment, R53

Classification according to Regulation (EC) 1272/2008 (CLP)

Acute Tox. 4, H302

STOT RE 2, H373

Skin sens. 1, H317

Aquatic acute 1, H400

Aquatic chronic 1, H410

Diflufenican

Registration number (REACH)

Index

616-032-00-9

CLAYTON PLANT PROTECTION

CLAYTON VISTA Safety Data Sheet according to Regulation (EC) No. 1907/2006 and Regulation (EU) No. 453/2010. Version 1/dsc 18/6/2015. This version replaces all previous versions.

EINECS, ELINCS, NLP	---
CAS	CAS 83164-33-4
Content %	10-20
Classification according to Directive 67/548/EEC	Dangerous for the environment, R52 Dangerous for the environment, R53
Classification according to Regulation (EC) 1272/2008 (CLP)	Aquatic chronic 3, H412

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures: Never pour anything into the mouth of an unconscious person!

Inhalation: Remove person from danger area. Supply person with fresh air and consult doctor according to symptoms.

Skin contact: Dab away with polyethylene glycol 400. Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap. In case of irritation of the skin (flare), consult a doctor.

Eye contact: Remove contact lenses. Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion: Rinse the mouth thoroughly with water. Do not induce vomiting. Consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed : If applicable delayed symptoms and effects can be found in Section 11 and the absorption route in Section 4.1. Methaemoglobin formation. Cyanosis.

4.3 Indication of any immediate medical attention and special treatment needed: Symptomatic treatment. Sodium sulphate laxative (1 table spoon and 1 glass of water) with generous amounts of activated charcoal. For methaemoglobinaemia, 300 mg toluidine blue intravenously or 1 to 2 mg/kg methylene blue intravenously.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media : Suitable extinguishing media: Water jet spray/foam/CO₂/dry extinguisher

Unsuitable extinguishing media: None known

5.2 Special hazards arising from the substance or mixture: In case of fire the following can develop: oxides of carbon, oxides of sulphur, oxides of nitrogen, hydrogen cyanide, hydrofluoric acid, toxic gases.

5.3 Advice for firefighters: In case of fire and/or explosion do not breathe fumes. Protective respirator with independent air supply. According to size of fire, full protection, if necessary. Dispose of contaminated extinction water according to official regulations.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Keep non-essential personnel away. Ensure sufficient supply of air. Avoid contact with eyes or skin. If applicable, caution - risk of slipping

6.2 Environmental precautions: If leakage occurs, dam up. Resolve leaks, if possible, without risk. Prevent surface and ground-water infiltration, as well as ground penetration. Prevent from entering drainage system. If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up : Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13. Fill the absorbed material into lockable containers. Clean soiled bottles immediately.

6.4 Reference to other sections: For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: HANDLING AND STORAGE

In addition to information given in this section, relevant information can also be found in Sections 6.1 and 8.

7.1 Precautions for safe handling

7.1.1 General recommendations: Ensure good ventilation. Keep away from sources of ignition - Do not smoke. Avoid contact with eyes or skin. Separate storage of protective clothing. Eating, drinking, smoking, as well as food storage, is prohibited in work room. Observe directions on label and instructions for use. Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace : General hygiene measures for the handling of chemicals are applicable. Wash hands before breaks and at end of work. Keep away from food, drink and animal feeding stuffs. Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities : Keep out of access to unauthorised individuals. Store product closed and only in original packing. Not to be stored in gangways or stair wells. Protect from frost. Store in a well ventilated place. Store in a dry place. Suitable container: HDPE

7.3 Specific end use(s): No information available at present.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.2 Exposure controls

8.2.1 Appropriate engineering controls: Ensure good ventilation. This can be achieved by local suction or general air extraction. If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn. Applies only if maximum permissible exposure values are listed here.

8.2.2 Individual protection measures, such as personal protective equipment: General hygiene measures for the handling of chemicals are applicable. Wash hands before breaks and at end of work. Keep away from food, drink and

CLAYTON PLANT PROTECTION

CLAYTON VISTA Safety Data Sheet according to Regulation (EC) No. 1907/2006 and Regulation (EU) No. 453/2010. Version 1/dsc 18/6/2015. This version replaces all previous versions.

animal feeding stuffs. Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection: Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection: Chemical resistant protective gloves (EN 374).

Recommended: Protective nitrile gloves (EN 374). Minimum layer thickness in mm: 0,4.

Permeation time (penetration time) in minutes: >= 480. Protective hand cream recommended.

Skin protection - Other: Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection: Normally not necessary.

Thermal hazards: Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents. Selection of materials derived from glove manufacturer's indications. Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account. Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer. In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use. The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls : No information available at present.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state: Liquid, suspension Colour: White, beige Odour: Slightly, characteristic Odour threshold: Not determined pH-value: Not determined Melting point/freezing point: Not determined Initial boiling point and boiling range: Not determined Flash point: >100°C Evaporation rate: Not determined Flammability (solid, gas): Not determined Lower explosive limit: Not determined Upper explosive limit: Not determined Vapour pressure: Not determined Vapour density (air = 1): Not determined	Density: ~1,24 g/cm ³ (20°C) Bulk density: n.a. Solubility(ies): Not determined Water solubility: Dispersion Partition coefficient (n-octanol/water): Not determined Auto-ignition temperature: 445°C (Ignition temperature) Decomposition temperature: Not determined Viscosity: 150 - 400 mPas (20°C, (20/s)) Viscosity: 60 - 200 mPas (20°C, (100/s)) Explosive properties: Product is not explosive. (Regulation (EC) 440/2008 A.14. (EXPLOSIVE PROPERTIES)) Oxidising properties: No
--	---

9.2 Other information

Miscibility: Not determined Fat solubility / solvent: Not determined Conductivity: Not determined	Surface tension: 40,6 mN/m Solvents content: Not determined
---	--

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity : Not to be expected

10.2 Chemical stability : Stable with proper storage and handling.

10.3 Possibility of hazardous reactions : No dangerous reactions are known.

10.4 Conditions to avoid : See also Section 7. Strong heat

10.5 Incompatible materials : See also Section 7.

Avoid contact with strong alkalis. Avoid contact with strong oxidising agents. Avoid contact with strong acids.

10.6 Hazardous decomposition products ; See also Section 5.2. No decomposition when used as directed.

SECTION 11: TOXICOLOGICAL INFORMATION

Possibly more information on health effects, see Section 2.1 (classification).

Clayton Vista

Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	500 -2000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>4000	mg/kg	Rat		
Acute toxicity, by inhalation:	LC50	>2,078	mg/l/4h	Rat		
Skin corrosion/irritation:	Not irritant			Rabbit		
Serious eye damage/irritation:	Not irritant			Rabbit		
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (skin sensitisation)	Yes (skin contact)
Germ cell mutagenicity:			n.d.a.			
Carcinogenicity:			n.d.a.			
Reproductive toxicity:			n.d.a.			
Specific target organ toxicity -single exposure (STOT-SE):			n.d.a.			
Specific target organ toxicity - repeated exposure (STOT-RE):			n.d.a.			
Aspiration hazard:			n.d.a.			

CLAYTON PLANT PROTECTION

CLAYTON VISTA Safety Data Sheet according to Regulation (EC) No. 1907/2006 and Regulation (EU) No. 453/2010. Version 1/dsc 18/6/2015. This version replaces all previous versions.

Respiratory tract irritation: n.d.a.
Repeated dose toxicity: n.d.a.
Symptoms: n.d.a.
Other information: Classification according to calculation procedure.

Flufenacet (ISO)

Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Germ cell mutagenicity:						Negative
Carcinogenicity:						Negative
Reproductive toxicity:				Rat		Negative

Diflufenican

Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat		
Acute toxicity, by inhalation:	LC50	>4,94	mg/l/4h	Rat		

SECTION 12: ECOLOGICAL INFORMATION

Possibly more information on health effects, see Section 2.1 (classification).

Clayton Vista

Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:			n.d.a.				
Toxicity to daphnia:			n.d.a.				
Toxicity to algae:	EC50	72h	0,00663	mg/l	Pseudokirchnerie Ila subcapitata		
Persistence and degradability:			n.d.a.				
Bioaccumulative potential:			n.d.a.				
Mobility in soil:			n.d.a.				
Results of PBT and vPvB assessment:			n.d.a.				
Other adverse effects:			n.d.a.				

Flufenacet (ISO)

Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	2,19	mg/l	Lepomis macrochirus		
Toxicity to daphnia:	EC50	48h	30,9	mg/l	Daphnia magna		
Toxicity to algae:	EC50	72h	0,00663	mg/l	Pseudokirchnerie Ila subcapitata		

Diflufenican

Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	>0,04	mg/l			Does not conform with EU classification.
Toxicity to daphnia:	EC50	48h	0,24	mg/l	Daphnia magna		Does not conform with EU classification.
Toxicity to algae:	EC50	72h	0,0002-0,0004	mg/l			Does not conform with EU classification.
Toxicity to birds:	LD50		>2150	mg/kg	Colinus virginianus		
Toxicity to birds:	LD50		>4000	mg/kg	Anas platyrhynchos		

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods. For the substance / mixture / residual amounts

EC disposal code no.: The waste codes are recommendations based on the scheduled use of this product. Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2001/118/EC, 2001/119/EC, 2001/573/EC). 02 01 08 agrochemical waste containing dangerous substances. 07 04 99 wastes not otherwise specified. 20 01 19 pesticides

Recommendation: Pay attention to local and national official regulations e.g. suitable incineration plant, dispose at suitable refuse site.

For contaminated packing material ; Pay attention to local and national official regulations. Empty container completely. Uncontaminated packaging can be recycled. Dispose of packaging that cannot be cleaned in the same manner as the substance.

SECTION 14: TRANSPORT INFORMATION

General statements : UN number: 3082

Transport by road/by rail (ADR/RID)

UN proper shipping name: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FLUFENACET (ISO),DIFLUFENICAN)

Transport hazard class(es): 9. Packing group: III Classification code: M6

LQ (ADR 2013): 5 L LQ (ADR 2009): 7

Environmental hazards: environmentally hazardous. Tunnel restriction code: E

Transport by sea (IMDG-code)

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FLUFENACET (ISO),DIFLUFENICAN)

Transport hazard class(es): 9 Packing group: III EmS: F-A, S-F

Marine pollutant: Yes. Environmental hazards: environmentally hazardous

CLAYTON PLANT PROTECTION

CLAYTON VISTA Safety Data Sheet according to Regulation (EC) No. 1907/2006 and Regulation (EU) No. 453/2010. Version 1/dsc 18/6/2015. This version replaces all previous versions.

Transport by air (IATA)

UN proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (FLUFENACET (ISO),DIFLUFENICAN)

Transport hazard class(es): 9 Packing group: III Environmental hazards: environmentally hazardous

Special precautions for user : Persons employed in transporting dangerous goods must be trained. All persons involved in transporting must observe safety regulations. Precautions must be taken to prevent damage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Freight as packaged goods rather than in bulk, therefore not applicable. Minimum amount regulations have not been taken into account. Danger code and packing code on request.

SECTION 15: REGULATORY INFORMATION

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

For classification and labelling see Section 2. Observe restrictions: Yes

Comply with trade association/occupational health regulations. Observe youth employment law (German regulation).

Observe law on protection of expectant mothers (German regulation). Observe plant protection medium law.

15.2 Chemical safety assessment : A chemical safety assessment is not provided for mixtures.

SECTION 16: OTHER INFORMATION

These details refer to the product as it is delivered.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No.

Evaluation method used

1272/2008 (CLP)

Acute Tox. 4, H302

Classification based on test data.

Skin Sens. 1, H317

Classification according to calculation procedure.

STOT RE 2, H373

Classification based on test data.

Aquatic Acute 1, H400

Classification according to calculation procedure.

Aquatic Chronic 1, H410

Classification based on test data.

Classification based on test data.

The following phrases represent the posted R phrases / H phrases, Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Sections 2 and 3).

22 Harmful if swallowed.

43 May cause sensitisation by skin contact.

48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.

50 Very toxic to aquatic organisms.

50/53 Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

52 Harmful to aquatic organisms.

53 May cause long term adverse effects in the aquatic environment.

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

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.

H412 Harmful to aquatic life with long lasting effects

Acute Tox. — Acute toxicity - oral

Skin Sens. — Skin sensitisation

STOT RE — Specific target organ toxicity - repeated exposure

Aquatic Acute — Hazardous to the aquatic environment - acute

Aquatic Chronic — Hazardous to the aquatic environment - chronic

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.