CLAYTON PLANT PROTECTION
CLAYTON APT Safety Data Sheet according to Regulation (EU) No. 453/2010. Version 1/dsc 07/07/2017
This version replaces all previous versions

SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1. Product identifier CLAYTON APT MAPP15157
1.2. Relevant identified uses of the substance or mixture and uses advised : Herbicide
1.3. Details of the supplier of the safety data sheet : Marketing Company in UK
Clayton Plant Protection (UK) Ltd., Bracetown Business Park, Clonee, Dublin15. Ireland.
Tel: (00 353) 1 8210127 www.claytonpp.com Email: info@claytonpp.com

SECTION 2: Hazards Identification
2.1. Classification of the substance or mixture
Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Aquatic Acute	category 1	H400: Very toxic to aquatic life.
Aquatic Chronic	category 1	H410: Very toxic to aquatic life with long lasting effects.

2.2. Label elements
Signal word : Warning

H-statements
H410 Very toxic to aquatic life with long lasting effects.
P-statements
P273 Avoid release to the environment.
P391 Collect spillage.
P501 Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste
Supplemental information
EUH210 Safety data sheet available on request.
EUH401 To avoid risks to human health and the environment, comply with the instructions for use.
2.3. Other hazards : No other hazards known

SECTION 3: Composition/information on ingredients
3.1. Substances : Not applicable
3.2. Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
flazasulfuron	104040-78-0	26.6 %	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	(1)	Constituent
methylnaphthalenesulfonic acid/formaldehyde, copolymer, sodium salt	81065-51-2	4.9%<=C <5.6%	Eye Dam. 1; H318	(1)	Constituent
sodium diisopropylnaphthalenesulphonate	1322-93-6 215-343-3	C < 5 %	Acute Tox. 4; H332 Acute Tox. 4; H302 Eye Irrit. 2; H319 STOT SE 3; H335	(1)	Constituent

(1) For H-statements in full: see heading 16

SECTION 4: First aid measures
4.1. Description of first aid measures
General: If you feel unwell, seek medical advice.
After inhalation: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
After skin contact: Rinse with water. Soap may be used. Take victim to a doctor if irritation persists.
After eye contact: Rinse with water. Take victim to an ophthalmologist if irritation persists.
After ingestion: Rinse mouth with water. Do not induce vomiting. Consult a doctor/medical service if you feel unwell.
4.2. Most important symptoms and effects, both acute and delayed
4.2.1 Acute symptoms After inhalation: Unlikely to cause harmful effects. After skin contact: Not irritating. After eye contact: Not irritating. After ingestion: Unlikely to cause harmful effects.
4.2.2 Delayed symptoms No effects known.
4.3. Indication of any immediate medical attention and special treatment needed if applicable and available it will be listed below.

SECTION 5: Firefighting measures
5.1. Extinguishing media
5.1.1 Suitable extinguishing media: Polyvalent foam. ABC powder. Carbon dioxide. MAJOR FIRE: Water spray.
5.1.2 Unsuitable extinguishing media: Solid water jet ineffective as extinguishing medium.
5.2. Special hazards arising from the substance or mixture On heating/burning: release of toxic and corrosive gases/vapours e.g.: nitrous vapours, hydrofluoric acid, sulphur oxides, carbon monoxide - carbon dioxide.
5.3. Advice for firefighters

5.3.1 Instructions: Dilute toxic gases with water spray. Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.
5.3.2 Special protective equipment for fire-fighters: Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures Prevent dust cloud formation. No naked flames.
6.1.1 Protective equipment for non-emergency personnel See heading 8.2
6.1.2 Protective equipment for emergency responders Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. Suitable protective clothing See heading 8.2
6.2. Environmental precautions Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Dam up the solid spill. Knock down/dilute dust cloud with water spray. Prevent soil and water pollution. Prevent spreading in sewers.
6.3. Methods and material for containment and cleaning up Stop dust cloud by covering with sand/earth. Scoop solid spill into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.
6.4. Reference to other sections See heading 13.

SECTION 7: Handling and storage
The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.
7.1. Precautions for safe handling Avoid raising dust. Keep away from naked flames/heat. Observe normal hygiene standards. Keep container tightly closed. Do not discharge the waste into the drain.
7.2. Conditions for safe storage, including any incompatibilities
7.2.1 Safe storage requirements: Keep only in the original container. Meet the legal requirements.
7.2.2 Keep away from: Heat sources.
7.2.3 Suitable packaging material: No data available
7.2.4 Non suitable packaging material: No data available
7.3. Specific end use(s) If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer. The product will only be used as herbicide.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
8.1.1 Occupational exposure a) Occupational exposure limit values If limit values are applicable and available these will be listed below. b) National biological limit values If limit values are applicable and available these will be listed below.
8.1.2 Sampling methods If applicable and available it will be listed below.
8.1.3 Applicable limit values when using the substance or mixture as intended If limit values are applicable and available these will be listed below.
8.1.4 DNEL/PNEC values If applicable and available it will be listed below.
8.1.5 Control banding If applicable and available it will be listed below.
8.2. Exposure controls The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.
8.2.1 Appropriate engineering controls. Avoid raising dust. Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.
8.2.2 Individual protection measures, such as personal protective equipment Observe normal hygiene standards. Keep container tightly closed. Do not eat, drink or smoke during work.
a) Respiratory protection: Dust production: dust mask with filter type P1. b) Hand protection: Gloves. - materials (good resistance) Rubber, PVC, plastics. c) Eye protection: Safety glasses. In case of dust production: protective goggles.
d) Skin protection: Protective clothing.
8.2.3 Environmental exposure controls: See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical form Grains	Flash point No data available
Odour Cinnamon odour	Evaporation rate ether ; No data available
Odour threshold No data available	Relative vapour density No data available
Colour Brown	Vapour pressure No data available
Particle size 97.2% > 710 µm	Solubility No data available
Explosion limits No data available	Relative density 0.84 ; Bulk density
Flammability Non-flammable	Decomposition temperature No data available
Log Kow Not applicable (mixture)	Auto-ignition temperature No data available
Dynamic viscosity No data available	Explosive properties No chemical group associated with explosive properties
Kinematic viscosity No data available	
Melting point No data available	Oxidising properties No chemical group associated with oxidising properties
Boiling point No data available	pH 5.1 ; 1 % 9.2.

Other information : Absolute density 840 kg/m³

SECTION 10: Stability and reactivity
10.1. Reactivity Substance has acid reaction.
10.2. Chemical stability Stable under normal conditions.
10.3. Possibility of hazardous reactions No data available.
10.4. Conditions to avoid Avoid raising dust. Keep away from naked flames/heat.
10.5. Incompatible materials No data available.
10.6. Hazardous decomposition products On heating/burning: release of toxic and corrosive gases/vapours e.g.: nitrous vapours, hydrofluoric acid, sulphur oxides, carbon monoxide - carbon dioxide.

SECTION 11: Toxicological information
11.1. Information on toxicological effects
11.1.1 Test results
Acute toxicity
Clayton Apt

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		4800 mg/kg		Rat	Experimental value	
Dermal	LD50		> 2000 mg/kg		Rat	Experimental value	
Inhalation	LC50	4 h	> 6.17 mg/l	4 h	Rat	Experimental value	

flazasulfuron

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		> 5000 mg/kg		Rat (male/female)	Experimental value	
Dermal	LD50		> 2000 mg/kg		Rat	Experimental value	
Inhalation	LC50		> 5.99 mg/l	4h	Rat	Experimental value	

Judgement of the mixture is based on test data on the mixture as a whole
Conclusion Not classified for acute toxicity

Corrosion/irritation
Clayton Apt

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating					Literature study	
Skin	Not irritating					Literature study	

Judgement of the mixture is based on test data on the mixture as a whole
Conclusion Not classified as irritating to the skin Not classified as irritating to the eyes

Respiratory or skin sensitisation
Clayton Apt

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing					Literature study	

flazasulfuron

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing					Literature study	

Judgement of the mixture is based on test data on the mixture as a whole
Conclusion Not classified as sensitizing for skin

Specific target organ toxicity : Clayton Apt No (test)data on the mixture available Judgement is based on the relevant ingredients Conclusion Not classified for subchronic toxicity
Mutagenicity (in vitro) : Clayton Apt No (test)data on the mixture available
Mutagenicity (in vivo) : Clayton Apt No (test)data on the mixture available Judgement is based on the relevant ingredients
Conclusion Not classified for mutagenic or genotoxic toxicity

Carcinogenicity : Clayton Apt No (test)data on the mixture available Judgement is based on the relevant ingredients
Conclusion Not classified for carcinogenicity
Reproductive toxicity : Clayton Apt No (test)data on the mixture available Judgement is based on the relevant ingredients
Conclusion Not classified for reprotoxic or developmental toxicity

Toxicity other effects : Clayton Apt No (test)data on the mixture available
Chronic effects from short and long-term exposure : Clayton Apt No effects known.

SECTION 12: Ecological information

12.1. Toxicity

Clayton Apt

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		> 100 mg/l	96 h	Oncorhynchus mykiss			Experimental value
	LC50		> 400 mg/l	96 h	Lepomis macrochirus			Experimental value
Acute toxicity invertebrates	EC50		> 100 mg/l	48 h	Daphnia magna			Experimental value
Toxicity algae and other aquatic plants	EC50		0.025 mg/l	72 h	Selenastrum capricornutum			Experimental value

flazasulfuron

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		22 mg/l	96 h	Oncorhynchus mykiss	Flow-through system		Experimental value
	LC50		> 98 mg/l	96 h	Lepomis macrochirus	Flow-through system		Experimental value
Acute toxicity invertebrates	EC50		> 106 mg/l	48 h	Daphnia magna			Experimental value
	EC50		0.045 mg/l	72 h	Selenastrum capricornutum			Experimental value
Toxicity algae and other aquatic plants	NOEC		0.02 µg/l	7 day(s)	Lemna gibba			Experimental value
Toxicity aquatic microorganisms	OECD 209		100 mg/l		Activated sludge			Experimental value

Classification of the mixture is based on test data on the mixture as a whole
Conclusion : Slightly harmful to fishes Slightly harmful to crustacea Very toxic to algae Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability. Flazasulfuron : Half-life soil (t1/2 soil)

Method	Value	Primary degradation/mineralisation	Value determination
	12.8 day(s) - 15.9 day(s)		

Conclusion : Contains non readily biodegradable component(s)

12.3. Bioaccumulative potential . Clayton Apt : Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

flazasulfuron : Log Kow

Method	Remark	Value	Temperature	Value determination
		< 1.5		

methylnaphthalenesulfonic acid/formaldehyde, copolymer, sodium salt : Log Kow

Method	Remark	Value	Temperature	Value determination
		No data available		

Conclusion No straightforward conclusion can be drawn based upon the available numerical values

12.4. Mobility in soil . flazasulfuron (log) Koc

Parameter	Method	Value	Value determination
Koc		46.16	Experimental value

Conclusion No straightforward conclusion can be drawn based upon the available numerical values

12.5. Results of PBT and vPvB assessment. Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

12.6. Other adverse effects

Clayton Apt : Fluorinated greenhouse gases (Regulation (EU) No 517/2014) None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)
Ozone-depleting potential (ODP) Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014. Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC). 02 01 08* (wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing: agrochemical waste containing hazardous substances).

13.1.2 Disposal methods Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into surface water.

13.1.3 Packaging/Container Waste material code packaging (Directive 2008/98/EC). 15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

14.1. UN number UN number 3077
14.2. UN proper shipping name Environmentally hazardous substance, solid, n.o.s. (flazasulfuron)
14.3. Transport hazard class(es) Hazard identification number 90 Class 9 Classification code M7
14.4. Packing group Packing group III Labels 9
14.5. Environmental hazards Environmentally hazardous substance mark yes
14.6. Special precautions for user Special provisions 274 Special provisions 335 Special provisions 375 Special provisions 601 Limited quantities Combination packagings: not more than 5 kg per inner packaging for solids. A package shall not weigh more than 30 kg. (gross mass)

Rail (RID)

14.1. UN number UN number 3077
14.2. UN proper shipping name Environmentally hazardous substance, solid, n.o.s. (flazasulfuron)
14.3. Transport hazard class(es) Hazard identification number 90 Class 9 Classification code M7
14.4. Packing group Packing group III Labels 9
14.5. Environmental hazards Environmentally hazardous substance mark yes
14.6. Special precautions for user Special provisions 274 Special provisions 335 Special provisions 375 Special provisions 601 Limited quantities Combination packagings: not more than 5 kg per inner packaging for solids. A package shall not weigh more than 30 kg. (gross mass)

Inland waterways (ADN)

14.1. UN number UN number 3077
14.2. UN proper shipping name Environmentally hazardous substance, solid, n.o.s. (flazasulfuron)
14.3. Transport hazard class(es) Class 9 Classification code M7
14.4. Packing group Packing group III Labels 9
14.5. Environmental hazards Environmentally hazardous substance mark yes
14.6. Special precautions for user Special provisions 274 ; Special provisions 335 ; Special provisions 375 ; Special provisions 601
Limited quantities : Combination packagings: not more than 5 kg per inner packaging for solids. A package shall not weigh more than 30 kg. (gross mass)

Sea (IMDG/IMSBC)

14.1. UN number UN number 3077
14.2. UN proper shipping name : Proper shipping name Environmentally hazardous substance, solid, n.o.s. (flazasulfuron)
14.3. Transport hazard class(es) Class 9
14.4. Packing group Packing group III Labels 9
14.5. Environmental hazards Marine pollutant P Environmentally hazardous substance mark yes
14.6. Special precautions for user Special provisions 274 Special provisions 335 Special provisions 966 Special provisions 967 Special provisions 969 Limited quantities Combination packagings: not more than 5 kg per inner packaging for solids. A package shall not weigh more than 30 kg. (gross mass)
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code . Annex II of MARPOL 73/78 Not applicable

Air (ICAO-TI/IATA-DGR)

14.1. UN number UN number 3077
14.2. UN proper shipping name Environmentally hazardous substance, solid, n.o.s. (flazasulfuron)
14.3. Transport hazard class(es) Class 9
14.4. Packing group Packing group III Labels 9
14.5. Environmental hazards Environmentally hazardous substance mark yes
14.6. Special precautions for user Special provisions A97 Special provisions A158 Special provisions A179 Special provisions A197
Passenger and cargo transport: limited quantities: maximum net quantity per packaging 30 kg G

SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
European legislation: VOC content Directive 2010/75/EU
VOC content 0 % Remark -
European drinking water standards (Directive 98/83/EC) : flazasulfuron

Parameter	Parametric value	Note	Reference
Pesticides	0,1 µg/l		Listed in Annex I, Part B, of Directive 98/83/EC on the quality of water intended for human consumption
Pesticides — Total	0,5 µg/l		Listed in Annex I, Part B, of Directive 98/83/EC on the quality of water intended for human consumption.

National legislation Belgium Clayton Apt No data available

National legislation The Netherlands Clayton Apt Waste identification (the Netherlands) LWCA (the Netherlands): KGA category 03 Waterbezwaarlijkheid 4

National legislation France Clayton Apt No data available

National legislation Germany Clayton Apt Lagerklasse (TRGS510) 13: Nicht brennbare Feststoffe
WGK 2; Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4)

National legislation United Kingdom Clayton Apt No data available

Other relevant data Clayton Apt No data available
15.2. Chemical safety assessment : No chemical safety assessment has been conducted.

SECTION 16: Other information
Full text of any H-statements referred to under headings 2 and 3:
H302 Harmful if swallowed.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

(*) = INTERNAL CLASSIFICATION BY BIG
PBT-substances = persistent, bioaccumulative and toxic substances
CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe

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.