

CLAYTON PLANT PROTECTION

CLAYTON BELSTONE Safety Data Sheet according to Regulation (EU) No. 453/2010. Version 1/dsc 6/05/2015

This version replaces all previous versions

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

1.1 Product identifier CAYTON BELSTONE MAPP 14033

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

Relevant identified uses of the substance or mixture: Herbicide Use see Section 16.

Uses advised against: Not applicable

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.claytonpp.com Email: info@claytonpp.com

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 category	Hazard statement
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)

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

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

P102-Keep out of reach of children.

Disposal

P501 - Dispose of contents/container to hazardous or special waste collection point.

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

Formulation: Suspension concentrate

3.1 Substance n.a.

3.2 Mixture

Bifenox	
Registration number (REACH)	--
Index	--
EINECS, ELINCS, NLP	255-894-7
CAS	CAS 42576-02-3
Content %	30-50
Classification according to Directive 67/548/EEC	Dangerous for the environment, N, R50 Dangerous for the environment, R53
Classification according to Regulation (EC) 1272/2008 (CLP)	Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410 (M=1000)

For the text of the R-phrases / H-phrases and classification codes (GHS/CLP), see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation : Remove person from danger area. Supply person with fresh air and consult doctor according to symptoms. If the person is unconscious, place in a stable side position and consult a doctor.

Skin contact : 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. Give copious water to drink - consult doctor immediately. Never pour anything into the mouth of an unconscious person.

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. In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

4.3 Indication of any immediate medical attention and special treatment needed Symptomatic treatment Antidote: None known

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SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media : Suitable extinguishing media Water jet spray/foam/CO2/dry extinguisher Unsuitable extinguishing media High volume water jet

5.2 Special hazards arising from the substance or mixture : In case of fire the following can develop: Oxides of carbon Oxides of nitrogen Oxides of phosphorus Hydrogen chloride 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 use 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 : 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 this 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, sawdust) and dispose of according to Section 13. Fill the absorbed material into lockable containers.

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. Avoid contact with eyes or skin. Eating, drinking, smoking, as well as food storage, is prohibited in workroom. 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.

Observe regulations for keeping separated. Store product closed and only in original packing. Not to be stored in gangways or stair wells. Under all circumstances prevent penetration into the soil. Only store at temperatures from 0°C to 54°C.

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

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	84 mg/kg
Consumer	Human- dermal	Long term, systemic effects	DNEL	51 mg/kg
	Environment- freshwater		PNEC	0,1 mg/l
	Environment - marine		PNEC	0,01 mg/l
	Environment - sporadic (intermittent) release		PNEC	1 mg/l
	Environment - sewage treatment plant		PNEC	1000 mg/l
	Environment - sediment, freshwater		PNEC	0,238 mg/kg
	Environment - marine		PNEC	0,0238 mg/kg
	Environment - soil		PNEC	0,0253 mg/kg
	Environment - oral (animal feed)		PNEC	313 mg/kg
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	238 mg/m3
	Human - inhalation	Long term, systemic effects	DNEL	70 mg/m3
Consumer	Human- oral	Long term, systemic effects	DNEL	24 mg/kg

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

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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 feedingstuffs. 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). If applicable: Protective Neoprene® / polychloroprene gloves (EN 374). Protective nitrile gloves (EN 374). Protective PVC gloves (EN 374). Minimum layer thickness in mm: 0,5 Permeation time (penetration time) in minutes: 120. The breakthrough times determined in accordance with EN 374 Part III were not obtained under practical conditions. The recommended maximum wearing time is 50% of breakthrough time. 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. With formation of mist. Filter A2 P2 (EN 14387), code colour brown, white. Observe wearing time limitations for respiratory protection equipment.

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, viscous Colour: Beige Odour: Characteristic Odour threshold: Not determined pH-value: 7,38 (1%, CIPAC MT 75.3) Melting point/freezing point: Not determined Initial boiling point and boiling range: Not determined Flash point: Not relevant 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: 1,18 kg/l (OECD 109 (Density of Liquids and Solids), relative density)	Bulk density: Not determined Solubility(ies): Not determined Water solubility: Mixable Partition coefficient (n-octanol/water): 3,64 (20°C, OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method), Bifenox) Auto-ignition temperature: 440°C (Regulation (EC) 440/2008 A.15. (AUTO-IGNITION TEMPERATURE (LIQUIDS AND GASES))) Decomposition temperature: Not determined Viscosity: 0,119-0,6457 Pas (20°C, OECD 114 (Viscosity of Liquids)) Viscosity: 0,1046-0,6848 Pas (40°C, OECD 114 (Viscosity of Liquids)) Explosive properties: Product is not explosive Oxidising properties: No
9.2 Other information Miscibility: Not determined Fat solubility / solvent: Not determined Conductivity: Not determined Surface tension: Not determined Solvents content: Not determined	

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity The product has not been tested.

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. Protect from frost. Strong heat.

10.5 Incompatible materials See also Section 7. Avoid contact with strong oxidising agents. Avoid contact with strong alkalis. 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

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

Toxicity/effect	Endpoint	Value/Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5004 mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2004 mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>1,43 mg/l/4h	Rat	U.S. EPA 81-3	Maximum achievable concentration
Skin corrosion/irritation:			Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant

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Serious eye damage/irritation:			Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Slightly irritant
Respiratory or skin sensitisation:			Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitising
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.
Respiratory tract irritation:					n.d.a.
Repeated dose toxicity					n.d.a.
Symptoms:					n.d.a.
Other information:					Classification based on toxicological analyses
Acute toxicity, by oral route:	LD50	4556 mg/kg	Mouse		
Acute toxicity, by oral route:	LD50	>6400 mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000 mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	>0,91 mg/l			
Skin corrosion/irritation:			Rabbit		Not irritant
Serious eye damage/irritation:			Rabbit		Not irritant
Respiratory or skin sensitisation:			Guinea pig		Not sensitising

SECTION 12: ECOLOGICAL INFORMATION

For more information on environmental effects, see Section 2.1 (classification).

Product

Toxicity to fish: LC50 96h 11 mg/l *Oncorhynchus mykiss* OECD 203 (Fish, Acute Toxicity Test)

Toxicity to fish: NOEC/ NOEL 28d 0,638 mg/l *Oncorhynchus mykiss* OECD 204 (Fish, Prolonged Toxicity Test -14-Day Study)

Toxicity to daphnia: EC50 48h 34,8 mg/l *Daphnia magna* OECD 202 (*Daphnia* sp. Acute Immobilisation Test)

Toxicity to daphnia: NOEC/ NOEL 21d 280 µg/l *Daphnia magna* OECD 202 (*Daphnia* sp. Acute Immobilisation Test) Toxicity to algae:

EbC50 72h 0,72 µg/l *Desmodesmus subspicatus* OECD 201 (Alga, Growth Inhibition Test)

Toxicity to algae: ErC50 48h 0,71 µg/l *Desmodesmus subspicatus* OECD 201 (Alga, Growth Inhibition Test) 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.

Bifenox

Toxicity/effect Endpoint Time Value Unit Organism Test method Notes

Toxicity to fish: LC50 96h 0,67 mg/l *Oncorhynchus mykiss*

Toxicity to daphnia: EC50 48h 0,66 mg/l *Daphnia magna*

Toxicity to algae: EC50 72h 0,00018 mg/l *Scenedesmus subspicatus*

Bioaccumulative potential: Log Pow 4,5

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 01 aqueous washing liquids and mother liquors

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. Dispose of packaging that cannot be cleaned in the same manner as the substance.

15 01 02 plastic packaging

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. (BIFENOX) 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. (BIFENOX) Transport hazard class(es): 9 Packing group: III EmS: F-A, S-F Marine pollutant: Yes Environmental hazards: environmentally hazardous
Transport by air (IATA) UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BIFENOX) Transport hazard class(es): 9 Packing group: III Environmental hazards: environmentally hazardous

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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.
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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.

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. Revised sections: n.a. Observe plant protection medium law.

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. 1272/2008 (CLP) : Evaluation method used

Aquatic Acute 1, H400 Classification according to calculation procedure.

Aquatic Chronic 1, H410 Classification according to calculation procedure.

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). 50 Very toxic to aquatic organisms. 50/53 Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment. 53 May cause long term adverse effects in the aquatic environment. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. Aquatic Chronic — Hazardous to the aquatic environment - chronic Aquatic Acute — Hazardous to the aquatic environment - acute

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.