

CLAYTON PLANT PROTECTION

CLAYTON KLONDIKE Safety Data Sheet according to Regulation (EU) No. 1907/2006. Version 2/dsc 22/08/2023
This version replaces all previous versions

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

- 1.1. Product identifier CLAYTON KLONDIKE
- 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 : Clayton Plant Protection Ltd., Bracetown Business Park, Clonee, Dublin. D15YT2T Ireland.
Tel: (00 353) 1 8210127 www.claytonpp.com Email: info@claytonpp.com
- 1.4. National Emergency telephone number. National Poisons Information Centre, Beaumont Hospital, +353 (1) 809 21661.4.

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Carcinogenicity: Category 2 H351 Suspected of causing cancer.

Acute aquatic toxicity: Category 1 H400 Very toxic to aquatic life.

Chronic aquatic toxicity: Category 1 H410 Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- Aclonifen

Signal word: Warning



Hazard statements

H351 Suspected of causing cancer.

H410 Very toxic to aquatic life with long lasting effects.

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

EUH208 Contains Aclonifen, 1,2-benzisothiazolin-3-one. May produce an allergic reaction.

Precautionary statements

P280 Wear protective gloves.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P501 Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site, except for triple rinsed empty containers which can be disposed of as non-hazardous waste.

2.3 Other hazards. No additional hazards known beyond those already mentioned.

Ethoxylated polyarylphenol: This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Aclonifen: This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Ecological information: The substance/mixture does not contain any components considered as having endocrine disrupting properties according to Article 57(f) of REACH or the Delegated Regulation of the Commission (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or more.

Toxicological information: The substance/mixture does not contain any components considered as having endocrine disrupting properties according to Article 57(f) of REACH or the Delegated Regulation of the Commission (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or more

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical nature - Suspension concentrate (=flowable concentrate)(SC) Aclonifen 600 g/l

Hazardous components

Hazard statements according to Regulation (EC) No. 1272/2008

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification REGULATION (EC) No 1272/2008	Conc. [%]
Aclonifen	74070-46-5 277-704-1	Aquatic Chronic 1, H410 Carc. 2, H351 Skin Sens. 1A, H317 Aquatic Acute 1, H400	49.60
Ethoxylated polyarylphenol	99734-09-5	Aquatic Chronic 3, H412	>= 1.00 – < 25.00
1,2-Benzisothiazol-3(2H)- one	2634-33-5 220-120-9 01-2120761540-60-0003	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317	>=0.005 – < 0.05

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		Acute Tox. 4, H302 Aquatic Acute 1, H400	
Urea	57-13-6 200-315-5 01-2119463277-33-xxxx	Not classified	>= 1.0
1,2-Propanediol	57-55-6 200-338-0 01-2119456809-23-xxxx	Not classified	> 1.00

Particle characteristics : This substance/mixture does not contain nanoforms

Further information : Aclonifen 74070-46-5 M-Factor: 100 (acute), 10 (chronic)

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice: Move out of dangerous area. Remove contaminated clothing immediately and dispose of safely. When symptoms develop and persist, seek medical advice.

Inhalation: Move the victim to fresh air and keep at rest.

Skin contact: Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water.

Eye contact: Wash off immediately with plenty of water for at least 15 minutes.

Ingestion: Do NOT induce vomiting. Obtain medical attention. Keep patient warm and at rest.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No symptoms known or expected.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate. There is no specific antidote. Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable: High volume water jet

5.2 Special hazards arising from the substance or mixture: In the event of fire the following may be released: Carbon monoxide (CO), Nitrogen oxides (NOx), Hydrogen chloride (HCl)

5.3 Advice for firefighters: Special protective equipment for firefighters: In the event of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and protective suit.

Further information: Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions : Keep people away from and upwind of spill/leak. Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment. When dealing with a spillage do not eat, drink or smoke.

6.2 Environmental precautions: Do not allow to get into surface water, drains and ground water. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up. Methods for cleaning up: Recover the product by pumping, suction or absorption using a dry and inert absorbent clay. Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations. Additional advice: Check also for any local site procedures.

6.4 Reference to other sections: Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling: specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Use only in area provided with appropriate exhaust ventilation. Advice on protection against fire and explosion No special precautions required. Hygiene measures Avoid contact with skin, eyes and clothing. Keep working clothes separately. Remove soiled clothing immediately and clean thoroughly before using again. Wash hands before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Store in original container. Store in a place accessible by authorized persons only. Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from freezing. Keep away from direct sunlight.

Advice on common storage: Keep away from food, drink and animal feeding stuffs.

Suitable materials HDPE (high density polyethylene)

7.3 Specific end use(s): Refer to the label and/or leaflet.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Aclonifen	74070-46-5	2 mg/m ³ (SK-SEN)		OES
1,2-Propanediol (Total vapour and particulates.)	57-55-6	470 mg/m ³ /150 ppm (TWA)	2011	ELV (IE)
1,2-Propanediol (Particulate.)	57-55-6	10 mg/m ³ (TWA)	2011	ELV (IE)
Urea	57-13-6	10 mg/m ³ (TWA)		OES

8.2 Exposure controls

Personal protective equipment: In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection: Respiratory protection is not required under anticipated circumstances of exposure. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Hand protection: Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet. Material Nitrile rubber Rate of permeability > 480 min Glove thickness > 0.4 mm Protective index Class 6

Eye protection: Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

Skin and body protection: Wear standard coveralls and Category 3 Type 6 suit. If there is a risk of significant exposure, consider a higher protective type suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form suspension

Colour yellow pH 7.5 - 8.5 (1 %) (23 °C) (deionized water)

Boiling point/boiling range 100 °C

Flash point none

Ignition temperature 480 °C

Density ca. 1.21 g/cm³ (20 °C)

Water solubility dispersible

Partition coefficient: noctanol/water log Pow: 4.37 The value mentioned relates to the active ingredient aclonifen.

Viscosity, dynamic 250 - 450 mPa.s (20 °C) Velocity gradient 20 /s 100 - 200 mPa.s (20 °C) Velocity gradient 100 /s

Surface tension 40 mN/m (20 °C)

Explosivity Not explosive

9.2 Other information Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity Thermal decomposition Stable under normal conditions.

10.2 Chemical stability Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions No hazardous reactions when stored and handled according to prescribed instructions.

10.4 Conditions to avoid Extremes of temperature and direct sunlight.

10.5 Incompatible materials Store only in the original container.

10.6 Hazardous decomposition products No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity LD₅₀ (Rat) = 5,596 mg/kg

Acute inhalation toxicity During intended and foreseen applications, no respirable aerosol is formed.

Acute dermal toxicity LD₅₀ (Rat) > 2,000 mg/kg

Skin corrosion/irritation No skin irritation (Rabbit)

Serious eye damage/eye irritation No eye irritation (Rabbit)

Respiratory or skin sensitisation Skin: Non-sensitizing. (Guinea pig) OECD Test Guideline 406, Buehler test

Assessment STOT Specific target organ toxicity – single exposure Aclonifen: Based on available data, the classification criteria are not met.

Assessment STOT Specific target organ toxicity – repeated exposure Aclonifen did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity Aclonifen was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity Aclonifen caused an increased incidence of tumours in rats in the following organ(s):

Brain.

Assessment toxicity to reproduction Aclonifen did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity Aclonifen did not cause developmental toxicity in rats and rabbits.

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Aspiration hazard Based on available data, the classification criteria are not met.

11.2 Endocrine disrupting properties Assessment The substance/mixture does not contain any constituents considered as having endocrine disrupting properties according to Article 57(f) of REACH or the Delegated Regulation of the Commission (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or more.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)) = 1.27 mg/l Exposure time: 96 h

Toxicity to aquatic invertebrates EC50 (Daphnia magna (Water flea)) = 2.4 mg/l Exposure time: 48 h

Toxicity to aquatic plants EC50 (Raphidocelis subcapitata (freshwater green alga)) = 0.058 mg/l Growth rate; Exposure time: 96 h EC50 (Lemna gibba (gibbous duckweed)) 0.043 mg/l Exposure time: 168 h

12.2 Persistence and degradability

Biodegradability Aclonifen: Not rapidly biodegradable Koc Aclonifen: Koc: 5318 - 10612

12.3 Bioaccumulative potential Bioaccumulation Aclonifen: Bioconcentration factor (BCF) 2,896 Potential bioaccumulation

12.4 Mobility in soil Aclonifen: Immobile in soil

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment Aclonifen: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

12.6 Endocrine disrupting properties : Assessment : The substance/mixture does not contain any constituents considered as having endocrine disrupting properties according to Article 57(f) of REACH or the Delegated Regulation of the Commission (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or more.

12.7 Other Adverse Effects: Ecological information additional : No other effects to report.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product : It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines.

Contaminated packaging : Small containers (< 10 l or < 10 kg) should be rinsed thoroughly using an integrated pressure rinsing device, or, by manually rinsing three times. Add washings to sprayer at time of filling. Dispose of empty and cleaned packaging safely. Follow advice on product label and/or leaflet.

Waste key for the unused product : 02 01 08* agrochemical waste containing hazardous substances

SECTION 14: TRANSPORT INFORMATION

ADR/RID/ADN

14.1 UN number 3082

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ACLONIFEN SOLUTION)

14.3 Transport hazard class(es) 9

14.4 Packaging Group III

14.5 Environm. Hazardous Mark YES Hazard no. 90 This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

IMDG

14.1 UN number 3082

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ACLONIFEN SOLUTION)

14.3 Transport hazard class(es) 9

14.4 Packaging Group III

14.5 Marine pollutant YES

IATA

14.1 UN number 3082

14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ACLONIFEN SOLUTION)

14.3 Transport hazard class(es) 9

14.4 Packaging Group III

14.5 Environm. Hazardous Mark YES

14.6 Special precautions for user See sections 6 to 8 of this Safety Data Sheet.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code No transport in bulk according to the IBC Code.

SECTION 15: REGULATORY INFORMATION

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

Republic of Ireland Regulations

This material may be subject to some or all of the following regulations (and any subsequent amendments). Users must ensure that any uses and restrictions as indicated on the label and/or leaflet are followed.

Supply and Use

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European Communities (Prohibition of Certain Active Substances in Plant Protection Products) Regulations 1981 (SI No 320/1981) European Communities (Authorization, Placing on the Market, Use and Control of Plant Protection Products) Regulations 2003 (SI No 83/2003) European Communities (Classification, Packaging and Labelling of Plant Protection Products and Biocide Products) Regulations 2001 (SI No 624/2001
2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations, 2001 (SI No 619/2001)

Waste Treatment : Landfill Directive Regulation on Substances That Deplete the Ozone Layer 1994 (EEC/3093/94)

Further information : WHO-classification: III (Slightly hazardous)

15.2 Chemical safety assessment : A chemical safety assessment is not required.

SECTION 16: OTHER INFORMATION

Text of the hazard statements mentioned in Section 3

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H351 Suspected of causing cancer.

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.

Abbreviations and acronyms

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE Acute toxicity estimate

CAS-Nr. Chemical Abstracts Service number

Conc. Concentration

EC-No. European community number

ECx Effective concentration to x %

EINECS European inventory of existing commercial substances

ELINCS European list of notified chemical substances

ELV Exposure Limit Value

EN European Standard EU European Union

IATA International Air Transport Association

IBC International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)

ICx Inhibition concentration to x %

IMDG International Maritime Dangerous Goods

LCx Lethal concentration to x %

LDx Lethal dose to x %

LOEC/LOEL Lowest observed effect concentration/level

MARPOL MARPOL: International Convention for the prevention of marine pollution from ships

N.O.S. Not otherwise specified

NOEC/NOEL No observed effect concentration/level

OECD Organization for Economic Co-operation and Development

RID Regulations concerning the International Carriage of Dangerous Goods by Rail

SI Statutory Instrument

TWA Time weighted average

UN United Nations

WHO World health organisation

16. OTHER INFORMATION

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.

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