

# CLAYTON PLANT PROTECTION

**CLAYTON KIBO** Safety Data Sheet according to Regulation (EC) No. 1907/2006 and Regulation (EU) No. 453/2010.  
Version 2/dsc 14/05/2019. This version replaces all previous versions.

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## SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**1.1 Product identifier**      **Product name**      :    **CLAYTON KIBO**

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

Use                                :    Herbicide

### 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

Classification according to Regulation (EU) 1272/2008

Acute toxicity (Oral)	Category 4	H302
Acute aquatic toxicity	Category 1	H400
Chronic aquatic toxicity	Category 1	H410

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

### 2.2 Label elements

Labelling: Regulation (EC) No. 1272/2008



Hazard pictograms

Signal Word	:Warning
Hazard Statements	:H302      Harmful if swallowed :H410      Very toxic to aquatic life with long lasting effects
Precautions Statements	:P102      Keep out of reach of children :P270      Do not eat, drink or smoke when using this product :P301/P312    IF SWALLOWED: Call a POISON CENTRE or doctor/ physician if you feel unwell :P330      Rinse mouth. :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	:EUH401      To avoid risks to human health and the environment comply with the instructions for use.

Hazardous components which must be listed on the label:  
prosulfuron

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**2.3 Other hazards** : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of .1% or higher. May form combustible dust concentrations in air.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS 3.2 Mixtures Hazardous components

Chemical Name	CAS No. EC No. Registration Number	Classification (67/548/EEC)	Classification (REGULATION (EC) No. 1272/2008)	Concentration
prosulfuron	94125-34-5 016-084-00-7	Xn, N R22 R50/53	Acute Tox.4; H302 Aquatic Acute1; H400 Aquatic Chronic1; H410	>= 70 - < 90
	25417-20-3 246-960-6	Xn R20/22 R36/38 R52/53	Acute Tox.4; H302 Acute Tox.4; H332 Skin Irrit.2; H315 Eye Irrit.2; H319 Aquatic Chronic3; H412	>= 2.5 - < 10

For explanation of abbreviations see section 16.

### SECTION 4. FIRST AID MEASURES 4.1 Description of first aid measures

General Advice	Have the product container, label or Material Safety Data Sheet with you when calling the emergency number, a poison control centre or physician, or going for treatment.
Inhalation	Move the victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or Poison Control Centre immediately.
Skin Contact	Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.
Ingestion	If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting.

### 4.2 Most important symptoms and effects, both acute and delayed

**Symptoms** : No information available.

### 4.3 Indication of any immediate medical attention and special treatment needed

**Medical advice** : There is no specific antidote available. Treat symptomatically.

### SECTION 5. FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

Extinguishing media - small fires  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
Extinguishing media - large fires  
Use alcohol-resistant foam or water spray.  
Do not use a solid water stream as it may scatter and spread fire.

#### 5.2 Special hazards arising from the substance or mixture

As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Exposure to decomposition products may be a hazard to health.

#### 5.3 Advice for fire-fighters:

Wear full protective clothing and self-contained breathing apparatus. Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipment and emergency procedures** Refer to protective measures listed in sections 7 and 8. Avoid dust formation.

#### 6.2 Environmental precautions:

Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

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## 6.3 Methods and materials for containment and cleaning up

Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13). Do not create a powder cloud by using a brush or compressed air. Clean contaminated surface thoroughly. If the product contaminates rivers and lakes or drains inform respective authorities.

## 6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8.

Refer to disposal considerations listed in section 13.

## SECTION 7. HANDLING AND STORAGE 7.1 Precautions for safe handling

This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents. This material can become readily charged in most operations. Avoid contact with skin and eyes. When using, do not eat, drink or smoke. For personal protection see section 8.

## 7.2 Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs.

Further information on storage stability : Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures

## 7.3 Specific end use(s)

Registered Crop Protection products: For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
prosulfuron (ISO)	94125-34-5	TWA	4 mg/m <sup>3</sup>	Syngenta

### 8.2 Exposure controls

Engineering measures Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. Maintain air concentrations below occupational exposure standards. Where necessary, seek additional occupational hygiene advice.

Personal protective equipment

Eye protection : No special protective equipment required.

Hand protection Remarks : No special protective equipment required.

Skin and body protection : No special protective equipment required. Select skin and body protection based on the physical job requirements.

Respiratory protection : No personal respiratory protective equipment normally required. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Protective measures : The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES 9.1 Information on basic physical and chemical properties

Physical State	Solid
Form	Granules
Colour	Tan to brownish
Odour	Sweetish
Odour Threshold	No data available
pH	5 – 8 at 1 %w/v
Melting point/range	No data available

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Boiling point/boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	May form combustible dust concentrations in air.
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	No data available
Relative vapour density	No data available
Density	1 g/cm <sup>3</sup>
Bulk density	0.4 - 0.7 g/cm <sup>3</sup>
Solubility in other solvents	No data available
Partition Coefficient n-octanol/water	No data available
Autoignition temperature	No data available
Thermal decomposition	No data available
Viscosity, dynamic	No data available
Viscosity, kinematic	No data available
Explosive properties	Not explosive
Oxidizing properties	Not oxidising

**9.2 Other information :** Minimum ignition energy : 300 - 1,000 mJ

### **SECTION 10. STABILITY AND REACTIVITY**

10.1	Reactivity	None reasonably foreseeable.
10.2	Chemical Stability	Stable under normal conditions.
10.3		Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.
10.4	Conditions to avoid	No decomposition if used as directed.
10.5	Incompatible materials	None known.
10.6	Hazardous decomposition products	No hazardous decomposition products are known.

### **SECTION 11. TOXICOLOGICAL INFORMATION 11.1 Information on toxicological effects**

Information on likely routes of exposure : Ingestion Inhalation Skin contact Eye contact

Acute toxicity

Product: Acute oral toxicity : LD<sub>50</sub> (Rat, male and female): 1,000 - 2,000 mg/kg Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : Acute toxicity estimate: > 5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method

Acute dermal toxicity : LD<sub>50</sub> (Rat): > 2,000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity

Components: prosulfuron (ISO):

Acute oral toxicity : LD<sub>50</sub> (Rat, male and female): 986 mg/kg

Acute inhalation toxicity : LC<sub>50</sub> (Rat, male and female): > 5,400 mg/m<sup>3</sup> Exposure time: 4 h Test atmosphere: dust/mist

Acute dermal toxicity : LD<sub>50</sub> (Rabbit, male and female): > 2,000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity sodium dibutyl-naphthalenesulphonate:

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : Assessment: The component/mixture is moderately toxic after short term inhalation.

Skin corrosion/irritation

Product: Species : Rabbit Result : No skin irritation

Components: prosulfuron (ISO): Species : Rabbit Result : No skin

irritation Serious eye damage/eye irritation Product: Species : Rabbit

Result : No eye irritation Components: prosulfuron (ISO):

Species : Rabbit Result : No eye irritation

sodium dibutyl-naphthalenesulphonate: Result : Eye irritation

Respiratory or skin sensitisation

Product: Test Type : Buehler Test Species : Guinea pig Result : Did not cause sensitisation on laboratory animals.

Components: prosulfuron (ISO):

Species : Guinea pig Result : Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Components: prosulfuron (ISO):

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects.

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### Carcinogenicity

Components: prosulfuron (ISO): Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

### Reproductive toxicity

Components: prosulfuron (ISO): Reproductive toxicity - Assessment : No toxicity to reproduction Repeated dose toxicity

Components: prosulfuron (ISO): Remarks : No adverse effect has been observed in chronic toxicity tests.

## **SECTION 12. ECOLOGICAL INFORMATION**

### 12.1 Toxicity

Product: Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h

Toxicity to algae : EbC50 (Desmodesmus subspicatus (green algae)): 3.2 mg/l Exposure time: 72 h

Ecotoxicology Assessment Acute aquatic toxicity : Very toxic to aquatic life., Classification of the product is based on the summation of the concentrations of classified components.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects., Classification of the product is based on the summation of the concentrations of classified components.

Components: prosulfuron (ISO): Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 120 mg/l Exposure time: 48 h

Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): 0.074 mg/l Exposure time: 72 h

NOEC (Pseudokirchneriella subcapitata (green algae)): 0.008 mg/l End point: Growth rate Exposure time: 72 h

EC50 (Lemna gibba (gibbous duckweed)): 0.00126 mg/l Exposure time: 14 d

NOEC (Lemna gibba (gibbous duckweed)): 0.00083 mg/l Exposure time: 14 d

M-Factor (Acute aquatic toxicity) : 100

Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l Exposure time: 3 h

Toxicity to fish (Chronic toxicity): NOEC: 5.8 mg/l Exposure time: 21 d Species: Oncorhynchus mykiss (rainbow trout) Toxicity

to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 32 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic toxicity) : 100 sodium dibutylnaphthalenesulphonate: Ecotoxicology Assessment Chronic aquatic toxicity Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability Components: prosulfuron (ISO): Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 45 - 60 d Remarks: Product is not persistent.

12.3 Bioaccumulative potential Components: prosulfuron (ISO): Bioaccumulation : Remarks: Low bioaccumulation potential.

Partition coefficient: noctanol/water : log Pow: -0.76 (25 °C) : log Pow: -0.21 (25 °C) : log Pow: 1.5 (25 °C)

12.4 Mobility in soil Components: prosulfuron (ISO): Distribution among environmental compartments : Remarks: Highly mobile in soils

Stability in soil : Dissipation time: 11 d Percentage dissipation: 50 % (DT50) Remarks: Product is not persistent.

12.5 Results of PBT and vPvB assessment Product: Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

Components: prosulfuron (ISO): Assessment : 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).

12.6 Other adverse effects No data available

## **SECTION 13. DISPOSAL CONSIDERATIONS 13.1 Waste treatment methods**

Product Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Contaminated Empty remaining contents. Triple rinse containers. Empty containers should be taken for packaging local recycling or waste disposal. Do not re-use empty containers.

Waste Code : 150110, packaging containing residues of or contaminated by dangerous substances

## **SECTION 14. TRANSPORT INFORMATION**

14.1 UN number ADN : UN 3077 ADR : UN 3077 RID : UN 3077 IMDG : UN 3077 IATA : UN 3077 14.2

UN proper shipping name

ADN : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PROSULFURON)

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PROSULFURON)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PROSULFURON)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PROSULFURON)

IATA : Environmentally hazardous substance, solid, n.o.s. (PROSULFURON)

14.3 Transport hazard class(es) ADN : 9 ADR : 9 RID : 9 IMDG : 9 IATA : 9

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14.4 Packing group. ADN Packing group : III Classification Code : M7 Hazard Identification Number : 90  
Labels : 9 ADR Packing group : III Classification Code : M7 Hazard Identification Number : 90 Labels : 9  
Tunnel restriction code : (-) RID Packing group : III Classification Code : M7 Hazard Identification Number  
: 90 Labels : 9 IMDG Packing group : III Labels : 9 EmS Code : F-A, S-F IATA (Cargo) Packing instruction  
(cargo aircraft) : 956 Packing instruction (LQ) : Y956 Packing group : III Labels : Miscellaneous  
ATA (Passenger) Packing instruction (passenger aircraft) : 956 Packing instruction (LQ) : Y956 Packing group :  
III Labels : Miscellaneous

14.5 Environmental hazards ADN Environmentally hazardous : yes ADR Environmentally hazardous : yes  
RID Environmentally hazardous : yes IMDG Marine pollutant : yes IATA (Passenger) Environmentally  
hazardous : yes IATA (Cargo) Environmentally hazardous : yes

14.6 Special precautions for user. The transport classification(s) provided herein are for informational  
purposes only, and solely based upon the properties of the unpackaged material as it is described within this  
Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and  
variations in regional or country regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable for product as supplied.

### **SECTION 15. REGULATORY INFORMATION 15.1 specific for the substance or mixture**

### **Safety, health and environmental regulations/legislation**

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous  
chemicals : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards  
involving dangerous substances.

	Quantity 1	Quantity 2
E1 ENVIRONMENTAL HAZARDS	100 t	200 t

Other regulations: Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related  
to chemical agents at work.

Use plant protection products safely. Always read the label and product information before use.

**15.2 Chemical Safety Assessment** : A Chemical Safety Assessment is not required for this substance.

### **SECTION 16. OTHER INFORMATION**

Full text of H-Statements

H302 : Harmful if swallowed. H315 : Causes skin irritation. H319 : Causes serious eye irritation. H332 : Harmful if inhaled. 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. Full text of other abbreviations Acute Tox. : Acute toxicity Aquatic Acute : Acute aquatic toxicity Aquatic Chronic :  
Chronic aquatic toxicity Eye Irrit. : Eye irritation Skin Irrit. : Skin irritation 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; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the  
Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008;  
CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL -  
Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx -  
Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule;  
ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS  
- Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA -  
International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying  
Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization;  
IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -  
International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for  
Standardization; KECl - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 -  
Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of  
Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No  
Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals;  
OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution  
Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical  
Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European  
Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID -  
Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition  
Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance



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Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information Classification of the mixture: Classification procedure: Acute Tox. 4 H302 Based on product data or assessment Aquatic Acute 1 H400 Based on product data or assessment Aquatic Chronic 1 H410 Based on product data or assessment

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 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. This version replaces all previous versions.