SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

CLAYTON GOLDCOB

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

1.1 Product identifier Product name : **CLAYTON GOLDCOB**

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

Company Clayton Plant Protection Limited
Bracetown Business Park
Clonee, Dublin 15,
Ireland

Telephone : (+353) 1 8210127

Website : https//claytonpp.com

1.4 Emergency telephone number

: +353 1 8210127

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EU) 1272/2008

Eye irritation	Category 2	H319
Acute aquatic toxicity	Category 1	H400
Chronic aquatic toxicity	Category 1	H410

2.2 Label elements

Labelling: Regulation (EC) No. 1272/2008

Hazard pictograms		
Signal Word	: Warning	
Hazard Statements	:H319	Causes serious eye irritation
	:H410	Very toxic to aquatic life with long lasting effects
Precautions Statements	:P102	Keep out of reach of children
	:P280	Wear eye protection/face protection
	:P305/P351/P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	:P337/313	If eye irritation persists: Get medical advice/attention.
	: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:

2.3 Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

Chemical Name	CAS No. EC No. Registration Number	Classification (REGULATION (EC) No. 1272/2008	Concentration
mesotrione	104206-82-8	Aquatic Acute1; H400 Aquatic Chronic1; H410	9 % w/w
2-(8-methylnonoxy) ethanol	61827-42-7	Acute Tox.4; H302 Eye Dam.1; H318 Aquatic Chronic3; H412	20 – 30 % w/w
Octan-1-ol	111-87-5 203-917-6	Eye Irrit.2; H319	5 – 10 % w/w

Substances for which there are Community workplace exposure limits.
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 : Have the product container, label or Material Safety Data Sheet with you when calling the Clayton 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.

6.2 Environmental precautions:

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

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

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

No special protective measures against fire required. 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

No special storage conditions required. 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.

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.

CLAYTON GOLDCOB

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	Exposure limit(s)	Type of exposure limit	Source
mesotrione	10 mg/m³	8 h TWA	SYNGENTA

The following recommendations for exposure controls/personal protection are intended for the manufacture, formulation and packaging of the product.

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. If airborne mists or vapours are generated, use local exhaust ventilation controls. Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit. Where necessary, seek additional occupational hygiene advice.

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. Personal protective equipment should be certified to appropriate standards.

Respiratory protection : No personal respiratory protective equipment normally required. A particulate filter respirator may be necessary until effective technical measures are installed.

Hand protection : Chemical resistant gloves are not usually required. Select gloves based on the physical job requirements.

Eye Protection : If eye contact is possible, use tight-fitting chemical safety goggles.

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

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

Physical State	:	Liquid
Form	:	Liquid
Colour	:	Light brown
Odour	:	Like octanol
Odour Threshold	:	No data available
pH	:	2.2 at 20 °C
Melting point/range	:	< -5 °C
Boiling point/boiling range	:	> 100 °C
Flash point	:	90 °C Pensky-Martens c.c.
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Lower explosion limit	:	No data available

Upper explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Density	:	1.09 g/ml at 20 °C
Solubility in other solvents	:	Miscible in water
Partition Coefficient n-octanol/water	:	No data available
Autoignition temperature	:	395 °C
Thermal decomposition	:	No data available
Viscosity, dynamic	:	1,990 m Pa.s at 20 ºC 1,060 mPa.s at 40 ºC
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	Not oxidising

9.2 Other information

Surface tension 29.1 mN/m at 21 ºC

Acute oral toxicity	:	LD50 female rat, > 2,000 mg/kg
Acute dermal toxicity	:	LD50 rat, > 2,000 mg/kg
Skin corrosion/irritation	:	Rabbit: non-irritating
Serious eye damage/eye irritation	:	Rabbit: moderately irritating
Respiratory or skin sensitisation	:	Buehler test guinea pig: not a skin sensitiser in animal tests
Germ cell mutagenicity	:	
Mesotrione		Did not show mutagenic effects in animal experiments.
Octan-1-ol		Not mutagenic in Ames Test.
Carcinogenicity	:	
mesotrione		Did not show carcinogenic effects in animal experiments.
Reproductive toxicity	:	
Mesotrione		Did not show reproductive toxicity effects in animal experiments.
Octan-1-ol		No toxicity to reproduction.
STOT – repeated exposure mesotrione	:	No adverse effect has been observed in chronic toxicity tests.

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity : No information available

10.2 Chemical Stability : No information available

10.3 Possibility of hazardous reactions : None known. Hazardous polymerisation does not occur.

10.4 Conditions to avoid : No information available **10.5 Incompatible materials** : No information available

10.6 Hazardous decomposition products : Combustion or thermal decomposition will evolve toxic and irritant vapours.

SECTION 11. TOXICOLOGICAL INFORMATION 11.1 Information on toxicological effects

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SECTION 12. ECOLOGICAL INFORMATION 12.1 Toxicity

Toxicity to fish : LC50 *Cyprinus carpio* (Carp), 71 mg/l, 96 h

Toxicity to aquatic : EC50 *Daphnia magna* (Water flea), 49 mg/l, 48 h **invertebrates**

Toxicity to aquatic plants : EbC50 *Pseudokirchneriella supcapitata* (green algae), 72 mg/l, 96 h
ErC50 *Pseudokirchneriella supcapitata* (green algae), > 100 mg/l, 96h
EC50 Frond growth *Lemna gibba* (duckweed), calculated 0.23 mg/l, 14d
Derived from components.

12.2 Persistence and degradability

Stability in water mesotrione : Degradation half life: > 30 d at 25 °C. Persistent in water

Stability in soil
mesotrione : Degradation half life: 6 - 105 d. Not persistent in soil

12.3 Bioaccumulative potential mesotrione : The substance has low potential for bioaccumulation.

12.4 Mobility in soil mesotrione : mesotrione has medium to high mobility in soil.

12.5 Results of PBT and vPvB assessment mesotrione : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

None known.

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 packaging : Empty remaining contents. Triple rinse containers. Empty containers should be taken for local recycling or waste disposal. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION Land transport (ADR/RID)

14.1	**UN Number**	:	UN 3082

14.2	**UN proper shipping name**	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MESOTRIONE)
14.3	**Transport hazard class(es)**	:	9
14.4	**Packing Group**	;	III
Labels		:	9
14.5	**Environmental hazards**	:	Environmentally hazardous

Sea transport(IMDG)

14.1	**UN Number**	:	UN 3082
14.2	**UN proper shipping name**	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MESOTRIONE)
14.3	**Transport hazard class(es)**	:	9
14.4	**Packing Group**	;	III
Labels		:	9
14.5	**Environmental hazards**	:	Marine pollutant

Air transport (IATA-DGR)

14.1	**UN Number**	:	UN 3082
14.2	**UN proper shipping name**	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MESOTRIONE)
14.3	**Transport hazard class(es)**	:	9
14.4	**Packing Group**	;	III
Labels		:	9
14.6	**Special precautions for user**	:	none

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

SECTION 15. REGULATORY INFORMATION

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

GHS-Labelling

Hazard pictograms

Signal Word	: Warning	
Hazard Statements	:H319	Causes serious eye irritation
	:H410	Very toxic to aquatic life with long lasting effects

Precautions Statements	:P102	Keep out of reach of children
	:P280	Wear eye protection/face protection
	:P305/P351/P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	:P337/313	If eye irritation persists: Get medical advice/attention.
	: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:

- Mesotrione

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16. OTHER INFORMATION

Approval number, MAPP 18971.
Use plant protection products safely. Always read the label and product information before use.

Based upon SDS release dated 16th March 2019

Full text of H-Statements referred to under sections 2 and 3.

H302	Harmful if swallowed.
H318	Causes serious eye damage
H319	Causes serious eye irritation
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

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.