

# CLAYTON PLANT PROTECTION

**CLAYTON OZARK** Safety Data Sheet according to Regulation (EC) No. 1907/2006 and Regulation (EU) No. 453/2010. Version 2/dsc 06/02/2018. This version replaces all previous versions.

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

**1.1 Product identifier** Product name : CLAYTON OZARK MAPP 19392 **1.2 Relevant identified uses of the substance or mixture and uses advised against** Use : Fungicide **1.3 Details of the supplier of the safety data sheet Company**

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

Classification according to Regulation (EU) 1272/2008

Acute toxicity Category 4 H332 Harmful if inhaled  
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: Regulation (EC) No. 1272/2008

Hazard pictograms	
	
Signal Word	Warning
Hazard	H332 Harmful if inhaled
Statements	H410 Very toxic to aquatic life with long lasting effects Precautions P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Statements	P271 Use only outdoors or in a well-ventilated area. P304 + IF INHALED: Remove person to fresh air and keep comfortable for P340 + breathing. Call a POISON CENTRE/doctor if you feel unwell. P312 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. EUH208 Contains 1,2-benzisothiazol-3-one. May produce an allergic reaction.

Hazardous components which must be listed on the label: Azoxystrobin

**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 0.1% or higher.

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

Chemical Name	CAS No. EC No. Registration Number	Classification	Concentration (%w/w)
Azoxystrobin	131860-33-8	Acute Tox.3; H331 Aquatic Acute1; H400 Aquatic Chronic1; H410	>= 20 - < 25

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alcohols, C16-18, ethoxylated	68439-49-6	Acute Tox. 4; H302 Eye Dam. 1; H318	>= 10 - < 20
Naphthalenesulphonic acid, dimethyl-, polymer with formaldehyde and methyl-naphthalenesulfonic acid, sodium salt.	9008-63-3	Skin Irrit. 2; H315 Eye Irrit. 2; H319	>=1-<3
1,2-benzisothiazol-3(2H)-one	2634-33-5 200-120-9	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400	>= 0.025 - < 0.05

For the full text of the 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 an 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.
- If swallowed** 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.

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**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.

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## **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. 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.

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## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION 8.1 Control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	BASIS
azoxystrobin	131860-33-8	TWA	4mg/m <sup>3</sup>	Syngenta

### **8.2 Exposure controls**

**Engineering** Containment and/or segregation is the most reliable technical protection measure if **measures** 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 : 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 : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Suitable respiratory equipment: Respirator with a half face mask. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used. Use only respiratory protection equipment with CE-symbol including four digit test number.

Filter type : Combined particulates and organic vapour type (A-P)

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.

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

<b>Physical State</b>	Liquid
<b>Colour</b>	Off-white to yellow-orange
<b>Odour</b>	Odourless
<b>pH</b>	6-9 at 1% w/v
<b>Flash point</b>	> 97 °C at 97.5 kPa Pensky-Martens c.c.
<b>Density</b>	1.1 g/ml (25C)
<b>Autoignition temperature</b>	475 °C
<b>Viscosity, dynamic</b>	76.0 – 427 mPa.s at 40 °C 117 – 541 mPa.s at 20 °C
<b>Explosive properties</b>	Not explosive
<b>Oxidizing properties</b>	Not oxidising

#### **9.2 Other information**

<b>Surface tension</b>	32.0 mN/m at 20 °C
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### **SECTION 10: STABILITY AND REACTIVITY**

<b>10.1 Reactivity</b>	See section 10.3 (possibility of hazardous reactions)
<b>10.2 Chemical Stability</b>	Stable under normal conditions
<b>10.3 Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use
<b>10.4 Conditions to avoid</b>	No decomposition if used as directed.
<b>10.5 Incompatible materials</b>	None known
<b>10.6 Hazardous decomposition</b>	Combustion or thermal decomposition will evolve toxic and irritant vapours.

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

#### **Acute toxicity Product:**

Acute oral toxicity : LD50 (Rat, male and female): > 2,000 mg/kg Assessment: The substance or mixture has no acute oral toxicity. Remarks: The toxicological data has been taken from products of similar composition.

**Acute inhalation toxicity :** Acute toxicity estimate: 2.69 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method

**Acute dermal toxicity :** LD50 (Rat, male and female): > 2,000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity Remarks: The toxicological data has been taken from products of similar composition.

#### **Components: azoxystrobin:**

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat, female): 0.7 mg/l Exposure time: 4 h Test atmosphere: dust/mist

LC50 (Rat, male): 0.9 mg/l Exposure time: 4 h Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity

#### **C16-18 alcohols, ethoxylated:**

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

naphthalenesulfonic acid, dimethyl-, polymer with formaldehyde and methylnaphthalenesulfonic acid, sodium salt:

Acute oral toxicity : LD50 Oral (Rat): > 5,000 mg/kg

**1,2-benzisothiazol-3(2H)-one:** Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

**Skin corrosion/irritation Product:** Species: Rabbit Result: No skin irritation Remarks: The toxicological data has been taken from products of similar composition.

#### **Components:**

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**azoxystrobin**: Species: Rabbit Result: No skin irritation **naphthalenesulfonic acid, dimethyl-, polymer with formaldehyde and methylnaphthalenesulfonic acid, sodium salt**: Species: Rabbit Result: Irritating to skin. **1,2-benzisothiazol-3(2H)-one**: Result: Irritating to skin.

**Serious eye damage/eye irritation. Product**: Species: Rabbit Result: No eye irritation Remarks: The toxicological data has been taken from products of similar composition. **Components: azoxystrobin**: Species: Rabbit Result: No eye irritation **C16-18 alcohols, ethoxylated**: Result: Irreversible effects on the eye

**naphthalenesulfonic acid, dimethyl-, polymer with formaldehyde and methylnaphthalenesulfonic acid, sodium salt**: Species: Rabbit Result: Irritation to eyes, reversing within 21 days **1,2-benzisothiazol-3(2H)-one**: Result: Risk of serious damage to eyes.

### **Respiratory or skin sensitisation Product:**

Species: Guinea pig Result: Did not cause sensitisation on laboratory animals. Remarks: The toxicological data has been taken from products of similar composition.

**Components: azoxystrobin**: Species: Guinea pig Result: Did not cause sensitisation on laboratory animals. **1,2-benzisothiazol-3(2H)-one**: Result: Probability or evidence of skin sensitisation in humans

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

### **Carcinogenicity**

**Components: azoxystrobin**: Carcinogenicity- Assessment : No evidence of carcinogenicity in animal studies.

**Reproductive toxicity Components: azoxystrobin**: Reproductive toxicity- Assessment

**Repeated dose toxicity Components: azoxystrobin**: 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)): 1.2 mg/l Exposure time: 96 h Remarks: Based on test results obtained with similar product.

LC50 (Cyprinus carpio (Carp)): 2.8 mg/l Exposure time: 96 h Remarks: Based on test results obtained with similar product.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.83 mg/l Exposure time: 48 h Remarks: Based on test results obtained with similar product.

Toxicity to algae : ErC50 (Selenastrum capricornutum (green algae)): 2.2 mg/l Exposure time: 72 h Remarks: Based on test results obtained with similar product. Ecotoxicology Assessment

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: azoxystrobin:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.47 mg/l Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.28 mg/l Exposure time: 48 h. EC50 (Americamysis bahia (Mysid shrimp)): 0.055 mg/l Exposure time: 96 h

Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): 2 mg/l Exposure time: 96 h. NOEC (Pseudokirchneriella subcapitata (green algae)): 0.038 mg/l End point: Growth rate Exposure time: 96 h

ErC50 (Navicula pelliculosa (Freshwater diatom)): 0.301 mg/l Exposure time: 96 h

M-Factor (Acute aquatic toxicity) : 10

Toxicity to microorganisms : IC50 (Pseudomonas putida): > 3.2 mg/l Exposure time: 6 h

Toxicity to fish (Chronic toxicity) : NOEC: 0.16 mg/l Exposure time: 28 d Species: Oncorhynchus mykiss (rainbow trout) NOEC: 0.147 mg/l Exposure time: 33 d Species: Pimephales promelas (fathead minnow)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.044 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) NOEC: 0.0095 mg/l Exposure time: 28 d Species: Americamysis bahia (Mysid shrimp) M-Factor (Chronic aquatic toxicity) : 10 **1,2-benzisothiazol-3(2H)-**

**one:**

Ecotoxicology Assessment Acute aquatic toxicity : Very toxic to aquatic life.

### **12.2 Persistence and degradability**

Components: azoxystrobin: Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 214 d Remarks: The substance is stable in water.

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### **12.3 Bioaccumulative potential** Components: azoxystrobin: Bioaccumulation :

Remarks: Does not bioaccumulate

### **12.4 Mobility in soil**

Components: azoxystrobin: Distribution among environmental compartments

: Remarks: Azoxystrobin has low to very high mobility in soil.

Stability in soil : Percentage dissipation: 50 % (DT50: 80 d) 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: azoxystrobin: 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**

Components: azoxystrobin: Additional ecological information : No data available C16-18 alcohols, ethoxylated:

Additional ecological information : No data available naphthalenesulfonic acid, dimethyl-, polymer with formaldehyde and methylnaphthalenesulfonic acid, sodium salt: Additional ecological information : No data available

1,2-benzisothiazol-3(2H)-one: Additional ecological information : 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.

## **SECTION 14: TRANSPORT INFORMATION**

**14.1 UN number** ADN : UN 3082 ADR : UN 3082 RID : UN 3082 IMDG : UN 3082 IATA : UN 3082

### **14.2 UN proper shipping name**

ADN : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AZOXYSTROBIN) ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AZOXYSTROBIN)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AZOXYSTROBIN) IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AZOXYSTROBIN) IATA : Environmentally hazardous substance, liquid, n.o.s. (AZOXYSTROBIN)

**14.3 Transport hazard class(es)** ADN : 9 ADR : 9 RID : 9 IMDG : 9 IATA : 9 **14.4**

### **Packing group**

ADN Packing group : III Classification Code : M6 Hazard Identification Number : 90 Labels : 9

ADR Packing group : III Classification Code : M6 Hazard Identification Number : 90 Labels : 9

Tunnel restriction code : (E)

RID Packing group : III Classification Code : M6 Hazard Identification Number : 90 Labels : 9 IMDG

Packing group : III Labels : 9 EmS Code : F-A, S-F

IATA(Cargo) Packing instruction (cargo aircraft) : 964 Packing instruction (LQ) : Y964 Packing group : III Labels : Miscellaneous

IATA(Passenger) Packing instruction (passenger aircraft) : 964 Packing instruction (LQ) : Y964 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) Marine pollutant : yes IATA(Cargo) Marine pollutant : yes

**14.6 Special precautions for user** Not applicable **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 Safety, health and environmental regulations/legislation specific for the substance or mixture

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

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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.

15.2 Chemical safety assessment A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

### **SECTION 16: OTHER INFORMATION**

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

Full text of H-Statements H302 : Harmful if swallowed.

H315 : Causes skin irritation.

H317 : May cause an allergic skin reaction.

H318 : Causes serious eye damage.

H319 : Causes serious eye irritation.

H331 : Toxic if inhaled.

H400 : Very toxic to aquatic life.

H410 : Very toxic 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.