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

1.1. Product identifier

Product name	:	CLAYTON MIDAS
Product form	:	Mixture
Type of formulation	:	Emulsion, oil in water (EW)
Active Ingredient	:	Cyflufenamid
UK Identification Number	:	MAPP 18362

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

2.1. Relevant identified uses

Main use category : Plant protection product for professional use. Horticultural fungicide.

Use of the substance/mixture

1.2.2. Uses advised against

No additional information available.

1.3. Details of the supplier of the safety data sheet

Clayton Plant Protection Ltd.
Bracetown Business Park,
Clonee, Dublin 15,
Ireland
+353 1 8014000
dave@cpp.ag
www.cpp.ag

1.4. Emergency telephone number

Emergency number

The National Poisons Information Service:
Tel: 0870 600 6266 (UK only) or Dublin Tel: 0035 3 137 99 64/379966.
For further advice for veterinary surgeons: 020 7635 9195.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aquatic Chronic 2 H411

Full text of H-phrases: see section 16.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS09

Signal word (CLP) : Not signal word.

Hazard statements (CLP) : H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P273 - Avoid release to the environment.
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.

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).

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

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

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Cyflufenamid	(CAS No) 180409-60-3 (EC no) - (EC index no) -	5,0	Aquatic Chronic 1, H410
Hydrocarbons, C10-C13, aromatics, <1% naphthalene	(CAS No) - (EC no) 922-153-0 (EC index no) -	18	Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066
Sorbitane trioleate (Anhydro-D-glucitol trioleate)	(CAS No) 26266-58-0 (EC no) 247-569-3 (EC index no) -	10	Skin Irrit. 2, H315 Eye Irrit. 2, H319

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Polyoxyethylene oleylether (CAS No) 9004-98-2	(CAS No) 9004-98-2 (EC no) 500-016-2 (EC index no) -	10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Poly(oxy-1,2-ethanediyl), a-[2,4,6-tris(1-phenylethyl)phenyl]-w-hydroxy-	(CAS No) 99734-09-5	5	Aquatic Chronic 3, H412
Polyoxyethylene tristylylphenylether phosphate	(CAS No) 90093-37-1	1	Eye Irrit. 2, H319
1,2-Benzisothiazole-3-(2H)-one	(CAS No) 2634-33-5 (EC no) 220-120-9 (EC index no) 613-088-00-6	0,2	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 * Aquatic Acute 1, H400

*Specific Conc. Limits and M factors: C≥0,05% Skin Sens.1; H317.

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : In the event of any complaints or symptoms, avoid further exposure.

First-aid measures after inhalation : IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist call a doctor.

First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. Remove contaminated clothing and shoes.

If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist.

First-aid measures after ingestion : IF SWALLOWED: Immediately call a POISON CENTER or doctor. Never give anything by mouth to an unconscious person.

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

Symptoms/injuries : No data available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray

Dry chemical powder

Alcohol resistant foam

Carbon dioxide (CO_2).

Unsuitable extinguishing media : Not known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustion or thermal decomposition may generate toxic vapours: carbon dioxide, carbon monoxide, hydrogen fluoride and nitrogen oxides.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire.

Fight fire from safe distance and protected location.

Do not breathe fumes

Cool closed containers exposed to fire with water spray

If possible, take the containers out of dangerous zone.

Contain fire-fighting water with dikes or absorbents to prevent migration and entry into sewers or streams.

Protection during firefighting : Wear suitable protective clothing, gloves, eye/face protection and respiratory protection

Wear a self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection.

Emergency procedures : Evacuate area.

Ensure adequate ventilation.

Avoid direct contact with the substance.

Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Keep away from all ignitions sources.

Avoid breathing the mist or vapour.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

Notify the authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it. For large quantities: remove with vacuum truck. For small quantities: e.g. sand or vermiculite.

Once absorbed collect spilled material with shovels, buckets and place in closed containers and label properly.

Wash spill site xith soap and plenty of water after material pick-up is complete.

Remove as chemical waste, according to national or local legislation.

In the event of major spillage: contact an expert.

6.4. Reference to other sections

Reference to other sections (8, 13).

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Read label before use.

Avoid contact with eyes, skin, nose and mouth.

Wear suitable protective clothing, gloves and eye/face protection.

Opened containers must be carefully closed and kept upright to avoid leakage.

Do not breathe mist or vapour.

Hygiene measures	:	Always wash your hands immediately after handling this product, and once again before leaving the workplace. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Provide adequate ventilation. Store in a cool, dry, well-ventilated place.
Storage conditions	:	Prevent unauthorised access. Keep locked up and out of the reach of children. Keep in original containers, tightly closed. Keep away from food, drink and animal feedingstuffs. Protect against frost. Avoid direct contact with water, acids or bases. Keep away from heat and direct sunlight.

7.3. Specific end use(s)

Fungicide for agricultural use. Refer to the label.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Control parameters: Active ingredient: TLV/ACGIH not listed.

8.2. Exposure controls

Appropriate engineering controls	:	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Personal protective equipment	:	Protective clothing. Protective goggles. Gloves. Dust/aerosol mask.

Hand protection	:	Wear impervious gloves resistant to chemical. Gloves material; e.g. outside Rubber, Vinyl chloride resin; inside: cotton, rayon.
Eye protection	:	Safety goggles or a face shield.
Skin and body protection	:	Protective clothing with long sleeves waterproof and resistant to chemicals. Rubber boots.
Respiratory protection	:	Wear appropriate respirator for dust / organic vapors.
Hygiene measures	:	Do not eat, drink or smoke while handling the product. Clean gloves with soap and water before removing. Wash hands and face with soap and water before eating, drinking or smoking. Clean equipment, premises and work clothes regularly. Work clothing should remain on the work area and stored separately from street clothes.
Environmental exposure controls	:	Discharge into the environment must be avoided. Do not contaminate surface and groundwater.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Off-white to pale yellow.

Odour	:	Aromatic.
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	103 °C
Flash point	:	112 °C (Cleaveland open cup)
Self ignition temperature	:	No data available
Decomposition temperature	:	>140 °C (Cyflufenamid)
Flammability (solid, gas)	:	Ninguno.
Vapour pressure at 20 °C	:	3,54 × 10^{-5} Pa (Cyflufenamid)
Relative vapour density	:	No data available
Specific gravity (H_2O = 1)	:	1.027 (20°C)
Solubility	:	Insoluble.
Partition Coefficient n-Octanol/H_2O	:	Log Pow = 4.7 (25°C, pH6.75)
Log Kow	:	No data available
Viscosity, kinematic	:	3.7 x 10^{-5} m^2/sec (40°C)
Viscosity, dynamic	:	No data available
Explosive properties	:	Not explosive.
Oxidising properties	:	No oxidising properties.
Explosive limits	:	No data available

9.2. Other information

Surface tension : 31,9 mN/m (25°C)

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable at normal handling and storage conditions.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

Is not explosive and does not exhibit oxidant properties.

10.4. Conditions to avoid

High temperature.

10.5. Incompatible materials

Strong oxidizing agents, strong acids or bases.

10.6. Hazardous decomposition products

Combustion or thermal decomposition may generate toxic vapours: carbon oxides, nitrogen oxides, methyl sulfide, sulfur dioxide and hydrogen chloride.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

CYFLUFENAMID 5% EW	
LD50 oral rat	> 5000 mg/kg

CYFLUFENAMID 5% EW	
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat	> 4.41 mg/l/4h

Skin Irritation : Moderate to severe irritation in rabbits.
Eye Irritation : Very slight irritation in rabbits.
Sensitisation : Not a skin sensitizer in guinea pigs.
Carcinogenicity : Not carcinogenic in rats and mice (Cyflufenamid)
Mutagenicity : Ames test: Negative. (Cyflufenamid)
Chromosomal aberration test: Negative. (Cyflufenamid)
Cytogenetic test (mouse lymphoma): Negative (Cyflufenamid)
Toxicity for reproduction : Negative (Cyflufenamid)
Tetratogenicity : Negative in rats and rabbits (Cyflufenamid).
Chronic Toxicity : Cyflufenamid
NOAEL (rat, 2 years) : 4,4 mg/kg/day (male), 5,5 mg/kg/day (female)
NOAEL (mice, 1.5 years) : 62,8 mg/kg/day (male), 9,0 mg/kg/jour (female)
Subchronic Toxicity : Cyflufenamid
NOAEL (rat, 90 days, repeated dose) : 20,1 mg/kg/day (male), 24,7 mg/kg/day (female)

SECTION 12: Ecological information

12.1. Toxicity

CYFLUFENAMID 5% EW	
LC50 Fishes (*Oncorhynchus mykiss*)	9.84 mg/l (96 h)
EC50 Daphnia (*Daphnia magna*)	9.48 mg/l (48 h)
ErC50 Algae (*Selenastrum capricornutum*)	1.628 mg/l (72h)
Chronic Toxicity for Algae (NOEC)	0,395 mg/l (72h)

12.2. Persistence and degradability

Cyflufenamid (180409-60-3)	
Persistence and degradability	Not readily biodegradable.

12.3. Bioaccumulative potential

Cyflufenamid (180409-60-3)	
BCF	BCF = 528 at 10 µg/L (Mean of 10 -28 days)
Log Pow	Log Pow = 4,7 (25°C, pH 6.75)

12.4. Mobility in soil

Cyflufenamid	
Log Koc	1003 ~2100

12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

This mixture contains no substance considered to be very persistent and very bioaccumulative (vPvB).

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : 1) Waste disposal according to 91/689/EEC in the corresponding versions (hazardous waste).
2) Consider classifications(Eupopean waste catalogue)02 01 or 07 04.
3) Consult the appropriate local authorities about special requirement.
4) Dispose of contents/container in accordance with local /national/international regulations

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

UN-No. : 3082

14.2. UN proper shipping name

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Cyflufenamid and Polyoxyethylene oleylether mixture)

Transport document description : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. . (Cyflufenamid and Polyoxyethylene oleylether mixture), 9, III, (E)

14.3. Transport hazard class(es)

Class (UN) : 9

Hazard labels (UN) : 9

14.4. Packing group

Packing group (UN) : III

14.5. Environmental hazards

Dangerous for the environment :

Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.) : 90

Orange plates :

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

No additional information available

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Contains no REACH candidate substance

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Asp. Tox. 1	Aspiration hazard Category 1
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Skin Corr. 1B	skin corrosion/irritation Category 1B
Skin Irrit. 2	skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitisation Category 1
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H400	Very toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects