

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

1.1. Product identifier

Product name: CLIPLESS

Product code: 8810

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

Use of substance / mixture: Can be used as a plant growth regulator only.

1.3. Details of the supplier of the safety data sheet

Company name: Headland Agrochemicals

Rectors Lane

Pentre

Flintshire

CH5 2DH

United Kingdom

Tel: +44(0)1244 537370

Fax: +44(0)1244 532097

Email: enquiry@headlandgroup.com

1.4. Emergency telephone number

Emergency tel: +44(0)1244 537370

(office hours only)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CHIP: * T: R61; Xn: R62; -: R52/53

Classification under CLP: * Eye Irrit. 2: H319; Repr. 1B: H360Df; Aquatic Chronic 2: H411

Most important adverse effects: May cause harm to the unborn child. Possible risk of impaired fertility. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Label elements under CLP:

Hazard statements: * H319: Causes serious eye irritation.

H360Df: May damage the unborn child. Suspected of damaging fertility.

H411: Toxic to aquatic life with long lasting effects.

Signal words: * Danger

Hazard pictograms: * GHS07: Exclamation mark

GHS08: Health hazard

GHS09: Environmental

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Precautionary statements: * P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501: Dispose of contents/container to hazardous or special waste collection point.

Label elements under CHIP:

Hazard symbols: * Toxic.



Risk phrases: * R61: May cause harm to the unborn child.
R62: Possible risk of impaired fertility.
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases: * S24/25: Avoid contact with skin and eyes.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S39: Wear eye / face protection.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S61: Avoid release to the environment. Refer to special instructions / safety data sheets.

Precautionary phrases: To avoid risks to man and the environment, comply with the instructions for use.

2.3. Other hazards

PBT: This product is not identified as a PBT substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

* **Hazardous ingredients:**

TETRAHYDRO-2-FURANYLMETHANOL

EINECS	CAS	CHIP Classification	CLP Classification	Percent
202-625-6	97-99-4	Xi: R36; T: R61; Xn: R62	Eye Irrit. 2: H319; Repr. 1B: H360Df	50-70%

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POLY(OXY-1,2-ETHANE-DIRYL), ALPHA-[2,4,6-TRIS-(1-PHENYLETHYL)-PHENYL]-OMEGA-HYDROXY-

-	99734-09-5	N: R51/53	Aquatic Chronic 2: H411	10-30%
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TRINEXAPAC-ETHYL

-	95266-40-3	-: R52/53	Aquatic Chronic 2: H411	10-30%
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Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water. Consult a doctor if irritation develops.

Eye contact: Bathe the eye with running water for 15 minutes. Remove contact lenses, if present, after the first few minutes, then continue rinsing. Transfer to hospital for specialist examination.

Ingestion: Wash out mouth with water. Do not induce vomiting. Drink several glasses of water or milk. If vomiting occurs, rinse mouth and drink fluids again. Consult a doctor.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Get medical attention if any discomfort continues.

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

Skin contact: There may be mild irritation at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be irritation of the throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: No data available.

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

Immediate / special treatment: * Immediate medical attention is required in case of ingestion or eye contact. Show this safety data sheet to the doctor in attendance. There is no specific antidote for exposure to this material. Treatment of exposure is as for a general chemical. Gastric lavage and/or administration of activated charcoal can be considered.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: * Dry chemical or carbon dioxide for small fires, water spray or foam for large fires. Use water spray to cool containers. Avoid heavy hose streams.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: * In combustion emits toxic fumes of carbon dioxide / carbon monoxide. Vapours of tetrahydro-2-furylmethanol are heavier than air and may spread along floors. If heated it may form a flammable/slightly explosive vapour-air mixture.

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5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: * Refer to section 8 of SDS for personal protection details. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Avoid and reduce mist formation as much as possible. Turn leaking containers leak-side up to prevent the escape of liquid. In the case of large spills, (1 ton or more) alert the appropriate authorities.

6.2. Environmental precautions

Environmental precautions: * Do not discharge into drains or rivers. Contain the spillage using bunding. Wash waters must be prevented from entering surface water drains. Accidental release into water courses must be alerted to the appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: * Do not use equipment in clean-up procedure which may produce sparks. Surface water drains within close vicinity of the spill should be covered. Spills on the floor or other impervious surface should be absorbed onto an absorptive material such as hydrated lime, universal binder, or other absorbent clays. Collect the contaminated absorbent in suitable containers. Rinse the area with water and industrial detergent. Absorb wash liquid onto absorbent and transfer to suitable containers. Spills which soak into the ground should be dug up and placed in suitable containers. Spills in water should be contained as much as possible by isolation of the contaminated water. The contaminated water must be collected and removed for treatment or disposal. Refer to section 13 of SDS for suitable method of disposal.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS. Refer to section 13 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: * For use as a plant growth regulator, look for precautions and personal protection measures on the officially approved label or other official guidance or policy in force. If these are lacking, see section 8. Keep away from sources of ignition and protect from exposure to fire and heat. Avoid direct contact with the substance. Material should be handled by mechanical means as much as possible. Ensure there is sufficient ventilation of the area. Exhaust gases should be filtered or treated otherwise. Inhalation of the product's vapours can cause lowered consciousness, increasing risk when

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operating machinery and driving. Remove contaminated clothing immediately after handling, then wash thoroughly and put on clean clothes. Clean protective clothing and protective equipment with soap and water after use. Collect all wash water and dispose of as hazardous waste.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: * Keep away from sources of ignition. Do not store near direct sources of heat. Keep container tightly closed. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor. The room should only be used for storage of chemicals, and without access to unauthorised persons or children. Food, drink, feed and seed should not be present. A hand wash station should be available.

7.3. Specific end use(s)

Specific end use(s): The product is a registered plant growth regulator which may only be used for the applications it is registered for, in accordance with a label approved by the regulatory authorities.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits: No data available.

8.1. DNEL/PNEC Values

Hazardous ingredients:

TRINEXAPAC-ETHYL

Type	Exposure	Value	Population	Effect
DNEL	-	0.34 mg/kg.bw/day	-	Systemic
PNEC	Aquatic environment	0.041 mg/l	-	-

8.2. Exposure controls

Engineering measures: When used in a closed system, personal protection equipment will not be required. The following is meant for other situations, when the use of a closed system is not possible, or when it is necessary to open the system. Consider the need to render equipment or piping system non-hazardous before opening.

Respiratory protection: The product is not likely to present an airborne exposure concern during normal handling, but in the event of a discharge of the material which produces a heavy vapour or mist, workers should put on officially approved face mask or respiratory protection: Respiratory protection with universal filter type, including particle filter.

Hand protection: * Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber. The breakthrough times of these materials for the product are unknown, but it is expected they will give adequate protection. Replace gloves frequently and limit work done manually.

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Eye protection: Safety glasses. Safety goggles. Ensure eye bath is to hand.

Skin protection: * Waterproof pants and apron of chemical resistant material or coveralls with polyethylene (PE) coating will be sufficient for short time exposure. Coveralls must be discarded after use if contaminated. In cases of prolonged exposure, barrier laminate coveralls may be required.

Environmental: Refer to specific Member State legislation for requirements under Community environmental legislation.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Various

Odour: Glue like

Oxidising: Non-oxidising (by EC criteria)

Solubility in water: Dispersible in water

Viscosity: 18 mPa.s at 20°C; 8 mPa.s at 40°C

Flash point°C: 72

Part.coeff. n-octanol/water: See section 12.3

Autoflammability°C: 268

Relative density: 1.08 g/ml at 20°C

pH: 3.6 (1% in water)

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: * Heating of the product may produce combustible vapour which can form slightly explosive mixtures with air. The vapours are also harmful and irritating.

10.4. Conditions to avoid

Conditions to avoid: Heat. Flames. Sources of ignition.

10.5. Incompatible materials

Materials to avoid: * Oxidising agents. Reducing agents.

10.6. Hazardous decomposition products

Haz. decomp. products: See subsection 5.2.

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Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicity values:

Route	Species	Test	Value	Units
ORAL	RAT	LD50	>2000	mg/kg
DERMAL	RAT	LD50	>2000	mg/kg
INHALATION	RAT	4H LC50	>5.33	mg/l

Hazardous ingredients:

TETRAHYDRO-2-FURANYLMETHANOL

IPR	RAT	LD50	400	mg/kg
ORL	MUS	LD50	2300	mg/kg
ORL	RAT	LD50	1600	mg/kg

TRINEXAPAC-ETHYL

DERMAL	RAT	LD50	>4000	mg/kg
DUST/MIST	RAT	4H LC50	>5.3	mg/l
ORAL	RAT	LD50	4210	mg/kg

Relevant effects for mixture:

Effect	Route	Basis
Toxicity for reproduction	--	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: There may be mild irritation at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be irritation of the throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: No data available.

Section 12: Ecological information

12.1. Toxicity

* Ecotoxicity values:

Species	Test	Value	Units
HONEYBEE (<i>Apis mellifera</i>)	48H LC50	611.6 (oral)	µg/l
DUCKWEED (<i>Lemna gibba</i>)	7D NOECr	3.2	mg/l

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DUCKWEED (<i>Lemna gibba</i>)	7D ErC50	149	mg/l
ALGAE (<i>Pseudokirchneriella subcapitata</i>)	72H IC50	21.1	mg/l
DAPHNIDS (<i>Daphnia magna</i>)	48H EC50	>100	mg/l
RAINBOW TROUT (<i>Oncorhynchus mykiss</i>)	96H NOEC	3.2	mg/l
RAINBOW TROUT (<i>Oncorhynchus mykiss</i>)	96H LC50	34.1	mg/l
EARTHWORM (<i>Eisenia fetida</i>)	14D LC50	>1000	mg/kg dw soil
EARTHWORM (<i>Eisenia fetida</i>)	14D NOEC	>=1000	mg/kg dw soil

12.2. Persistence and degradability

Persistence and degradability: * Trinexapac-ethyl does not meet the criteria for being readily biodegradable, but it is degraded in the environment. Half-life times are usually less than 1 day in soil. Degradation products are further degraded, but slower. Degradation occurs mainly microbiologically. Tetrahydro-2-furylmethanol is considered readily biodegradable from the result of a screening test where 96.1% of the substance was degraded in activated sludge within 120 hours of incubation. Hazardous degradation products are not likely, and products of degradation are expected to be less toxic than the initial substance.

12.3. Bioaccumulative potential

Bioaccumulative potential: * The potential for bioaccumulation is low, given the bioaccumulation factor of trinexapac-ethyl is 6 for whole fish. Trinexapac-ethyl: log Kow at 25°C = 1.5 (pH 5); -0.29 (pH 6.9); -2.1 (pH 8.9). Tetrahydro-2-furylmethanol: log Kow = -0.11.

12.4. Mobility in soil

Mobility: * Under normal conditions trinexapac-ethyl is moderately mobile in soil. Due to its miscibility in water, tetrahydro-2-furylmethanol is expected to have high mobility in soil.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT substance.

12.6. Other adverse effects

Other adverse effects: No data available.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Waste that cannot be reused or chemically reprocessed can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Disposal of packaging: Triple rinse (or equivalent) and offer for recycling or reconditioning. Do not discharge cleaning water to sewer systems. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials. Alternatively, packaging can be delivered to a licensed service for disposal of hazardous waste.

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NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

14.1. UN number

UN number: * UN3082

14.2. UN proper shipping name

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(TRINEXAPAC-ETHYL)

14.3. Transport hazard class(es)

Transport class: * 9

14.4. Packing group

Packing group: * III

14.5. Environmental hazards

Environmentally hazardous: Yes

Marine pollutant: * Yes

14.6. Special precautions for user

Special precautions: Do not discharge to the environment.

Tunnel code: E

Transport category: 3

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk: The product is not transported in bulk tankers.

Section 15: Regulatory information

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

Specific regulations: * Seveso III, Dir. 2012/18/EU, Annex 1, part 1, section E2: Hazardous to the Aquatic Environment in Category Chronic 2. Workers under the age of 18 are not permitted to work with the product. All ingredients in this product are covered by EU chemical legislation. Product Registration Number: MAPP 15435.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

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Phrases used in s.2 and 3: H319: Causes serious eye irritation.
H360Df: May damage the unborn child. Suspected of damaging fertility.
H411: Toxic to aquatic life with long lasting effects.
R36: Irritating to eyes.
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R61: May cause harm to the unborn child.
R62: Possible risk of impaired fertility.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.