



SAFETY DATA SHEET CLIPLESS

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

1.1. Product identifier

Product name CLIPLESS
 Product number PST003,PST004
 Product Registration No. MAPP 15435

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

Identified uses Can be used as a plant growth regulator only.

1.3. Details of the supplier of the safety data sheet

Supplier Headland Amenity Ltd
 1 Burr Elm Court
 Main Street
 Caldecote
 Cambridge
 Cambridgeshire
 CB23 7NU
 Tel. +44 (0)1223 491090
 sds.enquiries@headlandamenity.com

Contact person Wendy Windscheffel

1.4. Emergency telephone number

Emergency telephone +44 (0)1223 491090 (9.00 - 5.00 GMT Mon-Fri)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Not Classified
 Health hazards Eye Irrit. 2 - H319 Repr. 1B - H360Df
 Environmental hazards Aquatic Chronic 2 - H411

Classification (67/548/EEC or 1999/45/EC) Xi; R36. Repr. Cat. 1 R61. Repr. Cat. 3 R62. N; R51/53

2.2. Label elements

Pictogram



Signal word

Danger

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Eye contact Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes and get medical attention.

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

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

Ingestion There may be irritation of the throat.

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

Eye contact There may be irritation and redness. Profuse watering of the eyes.

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

Specific treatments 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: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Small fires: Dry chemical or carbon dioxide. Larger fires: Water spray or foam.

Unsuitable extinguishing media Avoid heavy hose streams.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products Carbon dioxide (CO₂). Carbon monoxide (CO). 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.

5.3. Advice for firefighters

Protective actions during firefighting Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid and reduce mist formation as much as possible.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. To prevent release, place container with damaged side up. Accidental release into water courses must be alerted to the appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

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Methods for cleaning up

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 with absorbent, non-combustible material into 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. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

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. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 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. Inhalation of the product's vapours can cause lowered consciousness. Remove contaminated clothing immediately after handling, then wash thoroughly. 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 precautions

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. Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Specific end use(s)

This product is a registered pesticide, 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

TRINEXAPAC-ETHYL (CAS: 95266-40-3)

DNEL - ; systemic effects: 0.34 mg/kg/day

PNEC - Water; 0.041 mg/l

8.2. Exposure controls

Eye/face protection

Safety glasses. Chemical splash goggles. Ensure eye bath is available.

Hand protection

Wear protective gloves made of the following material: Barrier laminate. Butyl rubber. Nitrile rubber. Replace gloves frequently. Limit work done manually.

Other skin and body protection

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

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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.
Environmental exposure controls	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

Appearance	Liquid
Colour	Various.
Odour	Glue-like.
Odour threshold	No information available.
pH	pH (diluted solution): 3.6 (1% in water)
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	72°C
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Other flammability	No information available.
Vapour pressure	No information available.
Vapour density	No information available.
Relative density	1.08 g/ml @ 20°C
Bulk density	No information available.
Solubility(ies)	Dispersible in water.
Partition coefficient	See section 12.3
Auto-ignition temperature	268°C
Decomposition Temperature	No information available.
Viscosity	18 mPa s @ 20°C 8 mPa s @ 40°C
Explosive properties	No information available.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Stable under recommended transport or storage conditions.
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10.2. Chemical stability

Stability Stable under normal conditions.

10.3. Possibility of hazardous reactions

Possibility of 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 Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid Oxidising agents. Reducing agents.

10.6. Hazardous decomposition products

Hazardous decomposition products In combustion emits toxic fumes. See subsection 5.2.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

Ingestion There may be irritation of the throat.

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

Eye contact There may be irritation and redness. Profuse watering of the eyes.

SECTION 12: Ecological Information

12.1. Toxicity

Acute toxicity - fish NOEC, 96 hours: 3.2 mg/l, *Onchorhynchus mykiss* (Rainbow trout)
LC₅₀, 96 hours: 34.1 mg/l, *Onchorhynchus mykiss* (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: >100 mg/l, *Daphnia magna*

Acute toxicity - aquatic plants IC₅₀, 72 hours: 21.1 mg/l, *Pseudokirchneriella subcapitata*

Acute toxicity - terrestrial LC₅₀, 48 hours: 0.1166 mg/l, *Apis Mellifera* (Honeybee)
LC₅₀, 14 days: >1000 mg/kg soil, *Eisenia Fetida* (Earthworm)
NOEC, 14 days: >1000 mg/kg soil, *Eisenia Fetida* (Earthworm)

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.

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Partition coefficient See section 12.3

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

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods 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.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 3082

UN No. (IMDG) 3082

UN No. (ICAO) 3082

UN No. (ADN) 3082

14.2. UN proper shipping name

Proper shipping name (ADR/RID) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Proper shipping name (ADN) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es)

ADR/RID class 9

ADR/RID classification code M6

ADR/RID label 9

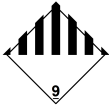
IMDG class 9

ICAO class/division 9

ADN class 9

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Transport labels



14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ADN packing group	III
ICAO packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3
Emergency Action Code	•3Z
Hazard Identification Number (ADR/RID)	90
Tunnel restriction code	(E)

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not relevant.

SECTION 15: Regulatory information

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

EU legislation	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.
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15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments	Supplier contact and emergency contact details updated.
Revision date	04/09/2015
Revision	2
Supersedes date	11/06/2015

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Risk phrases in full

R36 Irritating to eyes.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Hazard statements in full

H319 Causes serious eye irritation.

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

H411 Toxic to aquatic life with long lasting effects.

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.