



syngenta®

SONIS® is a growth regulator for crop height reduction, which can lead to lodging control and yield protection in all varieties of winter and spring wheat, winter and spring barley, winter and spring oats, rye, triticale, durum wheat and ryegrass seed crops.



SONIS® is an emulsifiable concentrate containing 250g/l trinexapac-ethyl.

*The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.*

Syngenta UK Limited  
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**In case of toxic or transport emergency ring +44 (0) 1484 538444 any time.**

PROTECT FROM FROST



This product label is compliant with the CPA Voluntary Initiative (VI) guidance.

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**1 Litre**

#### SONIS®

An emulsifiable concentrate formulation containing 250 g/l trinexapac-ethyl

#### Warning

**May cause an allergic skin reaction.**

**Very toxic to aquatic life with long lasting effects.**

Keep out of reach of children.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wear protective gloves/protective clothing.

IF ON SKIN: Wash with plenty of soap and water.

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

Take off contaminated clothing and wash it before reuse.

Collect spillage.

Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty triple rinsed clean containers which can be disposed of as non-hazardous waste.

Repeated exposure may cause skin dryness or cracking.

To avoid risks to human health and the environment comply with the instructions for use.

**MAPP 16891 UFI: 2EYS-P5WG-300V-Y4YN**



#### IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL PLANT GROWTH REGULATOR.

Crop	Maximum Individual Dose (product per hectare)	Maximum Total Dose (product per hectare per crop)	Latest Time of Application*
Winter Wheat	0.4	0.4	Before flag leaf sheath extending stage (GS 41)
Spring Wheat	0.4	0.4	Before third node detectable stage (GS 33)
Winter Barley	0.6	0.6	Before flag leaf sheath extending stage (GS 41)
Spring Barley	0.5	0.5	Before third node detectable stage (GS 33)
Winter and Spring Oats	0.4	0.4	Before second node detectable stage (GS 32)
Rye, Triticale, Durum Wheat	0.4	0.4	Before third node detectable stage (GS 33)
Grassland (seed crop)	0.8	0.8	Before second node detectable stage (GS 32)

\*see the DIRECTIONS FOR USE text, under CROPS for details of the earliest and latest time of application for each recommendation.

Other Specific Restrictions:

This product must not be used on grass seed crops that will be grazed by livestock or cut for fodder.

Treated grassland must not be grazed or cut for fodder.

**READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.**

#### SAFETY PRECAUTIONS

##### (a) Operator protection

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the concentrate. However engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection. AVOID ALL CONTACT WITH EYES. WASH HANDS before meals and after work.

##### (b) Environmental protection

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.

##### (c) Storage and disposal

KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place. RINSE OUT CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of safely.

This leaflet is part of the approved Product Label.

## **DIRECTIONS FOR USE**

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be carefully read in order to obtain safe and successful use of this product.

## **RESTRICTIONS**

Avoid spray drift onto neighbouring crops.

Only use on crops at risk of lodging.

Do not apply if rain or frost is expected or if the crop is wet.

Do not spray crops under stress or to crops suffering from waterlogging, pest attack, disease or frost.

## **GENERAL INFORMATION**

SONIS is an emulsifiable concentrate formulation containing 250 g/l trinexapac-ethyl.

It is a growth regulator for crop height reduction, which can lead to lodging control and yield protection in all varieties of winter & spring wheat, winter & spring barley, winter & spring oats, rye, triticale, durum wheat and ryegrass seed crops.

Treatment may lead to ears remaining erect through to harvest.

## **CROPS**

### **Winter Wheat**

Apply SONIS at 0.4 l/ha between the leaf sheath erect stage and the flag leaf fully emerged stage (GS 30-39).

### **Spring Wheat**

Apply SONIS at 0.4 l/ha between the leaf sheath erect stage and the second node detectable stage (GS 30-32).

### **Winter Barley**

Apply SONIS at 0.4 l/ha between leaf sheath erect stage and second node detectable stage (GS 30-32).

OR

Apply SONIS at 0.6 l/ha between the flag leaf just visible stage and flag leaf fully emerged stage (GS 37-39).

### **Spring Barley**

Apply SONIS at 0.5 l/ha between the leaf sheath erect stage and the second node detectable stage (GS 30-32).

### **Winter and Spring Oats**

Apply SONIS at 0.4 l/ha between the leaf sheath erect stage and the first node detectable stage (GS

30-31).

### **Rye, Triticale and Durum Wheat**

Apply SONIS at 0.4 l/ha between the leaf sheath erect stage and the second node detectable stage (GS 30-32).

## **Ryegrass Seed Crops**

Apply SONIS at 0.8 l/ha between the leaf sheath erect stage and the first node detectable stage (GS 30-31).

## **MIXING AND SPRAYING**

### **Spray Volume**

Apply SONIS in a recommended 200 l/ha of water. Increased penetration will be obtained with an increase in water volume but the necessity for this will be dependent on crop growth stage and habit.

### **Spray Nozzles**

Apply SONIS in a minimum of 200 litres water per hectare. Increased water volume may assist spray penetration in larger or denser crop canopies.

### **Mixing and Spraying**

Make sure the sprayer is set to give an even application at the correct volume.

Fill the spray tank with half the required volume of clean water and start agitation. Add the required amount of SONIS and continue agitation whilst adding the rest of the water. Agitate the mixture thoroughly before use and continue agitation during spraying.

Take particular care to avoid overlapping of spray swaths.

Thoroughly wash all spray and measuring equipment with water and a wetting agent immediately after use.

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## **SAFETY PRECAUTIONS**

### **(a) Operator protection**

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the concentrate.

However engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

AVOID ALL CONTACT WITH EYES.

WASH HANDS before meals and after work.

**(b) Environmental protection**

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.

**(c) Storage and disposal**

KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.

RINSE OUT CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of safely.

**SAFETY DATA SHEET****1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/ UNDERTAKING****1.1 Product identifier**

Trade name: SONIS

Design code: A7725M

Product Registration number: MAPP 16891

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

Use of the Substance/Mixture: Plant growth regulator

**1.3 Details of the supplier of the safety data sheet**

Company: Syngenta UK Limited  
CPC4, Capital Park  
Fulbourn, Cambridge CB21 5XE  
United Kingdom

Telephone: +44 (0) 1223 883400

Telefax: +44 (0) 1223 882195

E-mail address of person responsible for the SDS: customer.services@syngenta.com

**1.4 Emergency telephone number**

Emergency telephone number: +44 1484 538444

**2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

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**

<b>Signal Word</b>	Warning	
<b>Hazard Statements</b>	H317	May cause an allergic skin reaction.
	H410	Very toxic to aquatic life with long lasting effects.
<b>Supplemental Hazard Statements</b>	EUH066	Repeated exposure may cause skin dryness or cracking.
	EUH401	To avoid risks to human health and the environment comply with the instructions for use.
<b>Precautionary Statements</b>	P102	Keep out of reach of children.
	<b>Prevention:</b>	
	P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
	P280	Wear protective gloves/ protective clothing.
	<b>Response:</b>	
	P302+P352	IF ON SKIN: Wash with plenty of soap and water.
	P333+P313	If skin irritation or rash occurs: Get medical advice/ attention.
	P362+P364	Take off contaminated clothing and wash it before reuse.
	P391	Collect spillage.
	P501	Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty triple rinsed clean containers which can be disposed of as non-hazardous waste.

**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.

**3. COMPOSITION / INFORMATION ON INGREDIENTS****3.2 Mixtures****Hazardous Components**

Chemical Name	CAS No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
trinexapac-ethyl	95266-40-3	Aquatic Chronic 1; H410	>= 25 - < 30
poly(oxy1,2ethanediyl), alpha isotridecyl-o-mega hydroxy	9043-30-5 500-027-2	Acute Tox. 4; H302 Eye Dam. 1; H318 Aquatic Chronic 3; H412	>= 20 - < 25

For explanation of abbreviations see section 16.

## 4. FIRST-AID MEASURES

### 4.1 Description of first aid measures

General advice: Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.

If inhaled: 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.

In case of 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.

In case of 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: Nonspecific

No symptoms known or expected.

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

Treatment: There is no specific antidote available. Treat symptomatically.

## 5. FIREFIGHTING MEASURES

### 5.1 Extinguishing media

Suitable extinguishing media:

Extinguishing media - small fires

Use water spray, alcohol-resistant foam, dry chemical or car-bon dioxide.

Extinguishing media - large fires

Alcohol-resistant foam or Water spray

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

### 5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting: 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 firefighters

Special protective equipment for firefighters: Wear full protective clothing and self-contained breathing apparatus.

Further information: Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to protective measures listed in sections 7 and 8.

### 6.2 Environmental precautions

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

### 6.3 Methods and material for containment and cleaning up

Methods for 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). Clean contaminated surface thoroughly. Clean with detergents. Avoid solvents. Retain and dispose of contaminated wash water.

### 6.4 Reference to other sections

For disposal considerations see section 13., Refer to protective measures listed in sections 7 and 8.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Advice on 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

Requirements for storage areas and containers: 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 feedingstuffs.

Further information on storage stability: 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)

Specific use(s): For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
trinexapac-ethyl	95266-40-3	TWA	5 mg/m <sup>3</sup>	SYNGENTA

### 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. 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**

**Material:** Nitrile rubber

**Break through time:** > 480 min

**Glove thickness:** 0.5 mm

**Remarks:** Wear protective gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Skin and body protection:** Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Remove and wash contaminated clothing before re-use.

**Wear as appropriate:** Impervious clothing

**Respiratory protection:** No personal respiratory protective equipment normally required.

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance:	liquid
Colour:	yellow to red brown
Odour:	unpleasant
Odour Threshold:	No data available
pH:	2 - 6
	Concentration: 1 % w/v
Melting point/range:	No data available
Boiling point/boiling range:	No data available
Flash point:	79 °C(1,013 hPa)
	Method: Pensky-Martens closed cup
Evaporation rate:	No data available

Flammability (solid, gas):	No data available
Upper explosion limit /	
Upper flammability limit:	No data available
Lower explosion limit /	
Lower flammability limit:	No data available
Vapour pressure:	No data available
Relative vapour density:	No data available
Density:	0.98 g/cm <sup>3</sup> (25 °C)
Solubility(ies)	
Solubility in other solvents:	No data available
Partition coefficient:	
n-octanol/water:	No data available
Auto-ignition temperature:	250 °C
Decomposition temperature:	No data available
Viscosity	
Viscosity, dynamic:	10.01 mPa.s (20 °C)
	5.45 mPa.s (40 °C)
Explosive properties:	Not explosive
Oxidizing properties:	The substance or mixture is not classified as oxidizing.
<b>9.2 Other Information</b>	
Surface tension:	28.2 - 28.5 mN/m, 20°C

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

None reasonably foreseeable.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions: No dangerous reaction known under conditions of normal use.

### 10.4 Conditions to avoid

Conditions to avoid: No decomposition if used as directed.

### 10.5 Incompatible materials

Materials to avoid: None known.

### 10.6 Hazardous decomposition products

Hazardous decomposition products: No hazardous decomposition products are known.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

##### Product:

- Acute oral toxicity: LD50 (Mouse, male and female): > 5,000 mg/kg  
Assessment: The substance or mixture has no acute oral toxicity
- Acute inhalation toxicity: LC50 (Rat): > 2.51 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity
- Acute dermal toxicity: LD50 (Rat, male and female): > 4,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

##### Components:

##### trinexapac-ethyl:

- Acute oral toxicity: LD50 (Rat, male and female): 4,460 mg/kg
- Acute inhalation toxicity: LC50 (Rat, male and female): > 5.69 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity
- Acute dermal toxicity: LD50 (Rat, male and female): > 4,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

##### poly(oxy-1,2-ethanediyl), alpha-isotridecyl-omega-hydroxy-:

- Acute oral toxicity: LD50 (Rat): 1,940 mg/kg
- Acute dermal toxicity: LD50 (Rat): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

#### Skin corrosion/irritation

##### Product:

- Species: Rabbit  
Result: No skin irritation

##### Components:

##### trinexapac-ethyl:

- Species: Rabbit  
Result: No skin irritation

#### Serious eye damage/eye irritation

##### Product:

- Species: Rabbit  
Result: No eye irritation

##### Components:

##### trinexapac-ethyl:

- Species: Rabbit

Result: No eye irritation

##### poly(oxy-1,2-ethanediyl), alpha-isotridecyl-omega-hydroxy-:

- Species: Rabbit  
Result: Irreversible effects on the eye
- #### **Respiratory or skin sensitisation**
- Product:  
Species: Guinea pig  
Result: May cause sensitisation by skin contact.

##### Components:

##### trinexapac-ethyl:

- Test Type: mouse lymphoma cells  
Species: Mouse  
Result: Did not cause sensitisation on laboratory animals.

#### **Germ cell mutagenicity**

##### Components:

##### trinexapac-ethyl:

- Germ cell mutagenicity- Assessment: Animal testing did not show any mutagenic effects.
- ##### poly(oxy-1,2-ethanediyl), alpha-isotridecyl-omega-hydroxy-:
- Germ cell mutagenicity- Assessment: In vitro tests did not show mutagenic effects

#### **Carcinogenicity**

##### Components:

##### trinexapac-ethyl:

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

#### **Reproductive toxicity**

##### Components:

##### trinexapac-ethyl:

- Reproductive toxicity - Assessment: No toxicity to reproduction

#### **Repeated dose toxicity**

##### Components:

##### trinexapac-ethyl:

- Remarks: No adverse effect has been observed in chronic toxicity tests.

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

##### Product:

- Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): 24 mg/l  
Exposure time: 96 h

- Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna Straus): 2.9 mg/l  
Exposure time: 48 h

Toxicity to algae:	ErC50 (Anabaena flos-aquae (bluegreen algae)): 8.3 mg/l Exposure time: 96 h ErC50 (Lemna gibba (gibbous duckweed)): 55 mg/l Exposure time: 7 d
<b>Ecotoxicology Assessment</b>	
Acute aquatic toxicity:	Toxic to aquatic life., Classification of the product is based on the summation of the concentrations of classified components.
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.
<b>Components:</b> <b>trinexapac-ethyl:</b>	
Toxicity to fish:	LC50 (Oncorhynchus mykiss (rainbow trout)): 68 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates:	EC50 (Daphnia magna (Water flea)): > 142 mg/l Exposure time: 48 h LC50 (Americamysis): 6.5 mg/l Exposure time: 96 h
Toxicity to algae:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 24.5 mg/l Exposure time: 96 h ErC50 (Myriophyllum spicatum (Eurasian watermilfoil)): 1.2 mg/l Exposure time: 14 d EC10 (Myriophyllum spicatum (Eurasian watermilfoil)): 0.011 mg/l Exposure time: 14 d NOEC (Myriophyllum spicatum (Eurasian watermilfoil)): 0.025 mg/l Exposure time: 14 d
Toxicity to microorganisms:	EC50 (activated sludge): > 100 mg/l Exposure time: 3 h
Toxicity to fish (Chronic toxicity):	NOEC: 0.41 mg/l Exposure time: 35 d Species: Pimephales promelas (fathead minnow)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):	NOEC: 2.4 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea)
M-Factor (Chronic aquatic toxicity): 1	
<b>Ecotoxicology Assessment</b>	
Acute aquatic toxicity:	Toxic to aquatic life.
Chronic aquatic toxicity:	Very toxic to aquatic life with long lasting effects.

<b>poly(oxy-1,2-ethanediyl), alpha-isotridecyl-omega-hydroxy-:</b>	
Toxicity to fish:	LC50 (Danio rerio (zebra fish)): > 1 - 10 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates:	EC50 (Daphnia magna (Water flea)): 5 - 10 mg/l Exposure time: 48 h
<b>Ecotoxicology Assessment</b>	
Acute aquatic toxicity:	This product has no known ecotoxicological effects.
Chronic aquatic toxicity:	Harmful to aquatic life with long lasting effects.
<b>12.2 Persistence and degradability</b>	
<b>Components:</b> <b>trinexapac-ethyl:</b>	
Biodegradability: Result:	Not readily biodegradable.
Stability in water: Degradation half life:	3.9 - 5.5 d
Remarks:	Product is not persistent.
<b>12.3 Bioaccumulative potential</b>	
<b>Components:</b> <b>trinexapac-ethyl:</b>	
Bioaccumulation: Remarks:	Does not bioaccumulate.
Partition coefficient: n-octanol/water: log Pow:	-2.1 (25 °C) log Pow: -0.29 (25 °C) log Pow: 1.5 (25 °C)
<b>12.4 Mobility in soil</b>	
<b>Components:</b> <b>trinexapac-ethyl:</b>	
Distribution among environmental compartments: Remarks:	Moderately mobile in soils
Stability in soil: Dissipation time:	< 0.2 d
Percentage dissipation:	50 % (DT50)
Remarks:	Product is not persistent.
<b>12.5 Results of PBT and vPvB assessment</b>	
<b>Product:</b>	
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.
<b>Components:</b> <b>trinexapac-ethyl:</b>	
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).
<b>12.6 Other adverse effects</b>	
No data available	

### 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 to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

**Waste Code:** uncleaned packagings

150110, packaging containing residues of or contaminated by dangerous substances

### 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.  
(TRINEXAPAC-ETHYL)

**ADR:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(TRINEXAPAC-ETHYL)

**RID:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(TRINEXAPAC-ETHYL)

**IMDG:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(TRINEXAPAC-ETHYL)

**IATA:** Environmentally hazardous substance, liquid, n.o.s.  
(TRINEXAPAC-ETHYL)

#### 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: (-)

#### **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.

## 15. REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulation/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

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.

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

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

### 15.2 Chemical safety assessment

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

## 16. OTHER INFORMATION

### Full text of H-Statements

H302: Harmful if swallowed.

H318: Causes serious eye damage.

H410: Very toxic to aquatic life with long lasting effects.

H412: Harmful to aquatic life with long lasting effects.

### Full text of other abbreviations

Acute Tox.: Acute toxicity

Aquatic Chronic: Chronic aquatic toxicity

Eye Dam.: Serious eye damage

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the

German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q) SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

#### Classification of the mixture:

Skin Sens. 1 H317  
Aquatic Chronic 1 H410

#### Classification procedure:

Based on product data or assessment  
Based on product data or assessment

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.

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