Print Date 26.02.2025 Revision Date 26.02.2025

NEXUS

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

1.1 Product identifier

Trade name	:	NEXUS
Authorisation number	:	PCS 06558
Active substance	:	Trinexapac-ethyl (24,8 %) EC No.: 680-302-2 CAS No.: 95266-40-3 IUPAC Name: Ethyl 4-[cyclopropyl(hydroxy)methylene]-3,5-dioxocyclohexanecarboxylate
Substance No.	:	300000000617

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

Use of the Substance/Mixture	:	Plant growth regulator for professional use.

1.3 Details of the supplier of the safety data sheet

Address	:	Belcrop BV Tiensestraat 300 3400 Landen Belgium
Telephone	:	+32 11 59 83 60
Telefax	:	+32 11 59 83 61
E-mail address Contact Point	:	info@belcrop.be

1.4 Emergency telephone number

National Poisons Information Centre (Beaumont Hospital): 01 809 2166 (8 AM - 10 PM)
Emergency number in Belgium (24h/24, 7d/7): +32 11 69 79 80

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Respiratory/skin sensitization, Category 1B	H317: May cause an allergic skin reaction.
Serious eye damage/eye irritation, Category 2	H319: Causes serious eye irritation.
Specific target organ toxicity - single exposure, Category 3	H335: May cause respiratory irritation.
Reproductive toxicity, Category 2	H361d: Suspected of damaging the unborn child.
Specific target organ toxicity - repeated	H373: May cause damage to organs through

exposure, Category 2	prolonged or repeated exposure.
Hazardous to the aquatic environment - Acute hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (Regulation (EC) No. 1272/2008)

Hazard pictograms :

Signal word : Warning

Hazard statements :		
	H317	May cause an allergic skin reaction.
	H319	Causes serious eye irritation.
	H335	May cause respiratory irritation.
	H361d	Suspected of damaging the unborn child.
	H373	May cause damage to organs through prolonged or repeated exposure.
	H411	Toxic to aquatic life with long lasting effects.
	EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements :		
	P102	Keep out of reach of children.
	Prevention:	
	P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
	P273	Avoid release to the environment.
	P280	Wear protective gloves/protective clothing/eye protection
	Response:	
	P308 + P313	IF exposed or concerned: Get medical advice/attention.
	P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P337 + P313	If eye irritation persists: Get medical advice/attention.
	Disposal:	
	P501	Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for triple rinsed empty containers which can be disposed of as non-hazardous waste.

2.3 Other hazards

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

This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Chemical name	CAS No. EC No. Index No. Registration No.	Classification (Regulation (EC) No. 1272/2008) _____ M-Factor/SCL/ATE	Conc. [%]
Trinexapac-ethyl	95266-40-3 680-302-2 607-752-00-4 -	Skin Sens. 1B; H317 STOT RE 2; H373 Aquatic Chronic 1; H410 _____ M-Factor (Chronic aquatic toxicity): 1	24,8
Diacetone alcohol	123-42-2 204-626-7 603-016-00-1 -	Eye Irrit. 2; H319 STOT SE 3; H335 Repr. 2; H361d _____ SCL Eye Irrit. 2; H319: >= 10 %	<= 25
Substances with a workplace exposure limit			
Diacetone alcohol	123-42-2 204-626-7 603-016-00-1 -	Eye Irrit. 2; H319 STOT SE 3; H335 Repr. 2; H361d _____ SCL Eye Irrit. 2; H319: >= 10 %	<= 25

For the full text of the hazard statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Show this safety data sheet to the doctor in attendance.

If inhaled: : Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or a doctor if you feel unwell.

In case of skin contact:	:	Take off contaminated clothing. Wash with plenty of water for at least 15 minutes. If skin irritation or rash occurs: Get medical advice/attention. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.
In case of eye contact:	:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse AWAY from the unaffected eye. If eye irritation persists: Get medical advice/attention.
If swallowed:	:	Rinse mouth. Call a POISON CENTER or a doctor.

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

Treatment	:	For specialist advice physicians should contact the poisons information service.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Water Carbon dioxide (CO2) Dry powder Polyvalent foam
Unsuitable extinguishing media	:	Water spray jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting	:	Fire will produce dense black smoke containing hazardous combustion products (see Section 10). Exposure to decomposition products may be a hazard to health. Do not use a solid water stream as it may scatter and spread fire.

5.3 Advice for firefighters

Special protective equipment for fire-fighters	:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.
Other information	:	Standard procedure for chemical fires.

In the event of fire and/or explosion do not breathe fumes.
Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).
Ensure adequate ventilation.
Refer to protective measures listed in Section 7 and 8.

6.2 Environmental precautions

Environmental precautions : Discharge into the environment must be avoided.
Prevent further leakage or spillage.
Prevent product from entering drains.
Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material.
Shovel into suitable container for disposal.
Clean contaminated floors and objects thoroughly while observing environmental regulations.

6.4 Reference to other sections

See Section 8 for exposure controls/personal protection. See Section 13 for disposal considerations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Handle with care.
Take care to avoid waste and spillage when weighing, loading and mixing the product.
Smoking, eating and drinking should be prohibited in the application area.
Never mix concentrates directly.
Avoid inhalation, ingestion and contact with skin and eyes.
Avoid formation of dust and aerosols.
For personal protection see Section 8.
Avoid exceeding of the given occupational exposure limits (see Section 8).

Advice on protection against fire and explosion : Use explosion-proof equipment.
Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store at room temperature.
Store in original container.
Keep in a dry, cool and well-ventilated place.
To maintain product quality, do not store in heat or direct sunlight.
Keep away from food, drink and animal feeding stuffs.
Keep out of reach of children.

7.3 Specific end use(s)

See Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Component	CAS No.	Form of exposure	Value type	Control parameters	Basis
Diacetone alcohol	123-42-2	Not specified	TWA	50 ppm 240 mg/m3	IE OEL

8.2 Exposure controls

Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.
Recommended Filter type:
ABEK

: In the case of dust or aerosol formation use respirator with an approved filter.
Recommended Filter type:
P2FFP2

Hand protection : Protective gloves complying with EN 374.

Eye protection : Safety glasses with side-shields conforming to EN 166.

Skin and body protection	:	Long-sleeved clothing. Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. Store personal protection equipment in a clean location away from the work area. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Keep away from food and drink. Wash hands before eating, drinking, or smoking.
Protective measures	:	Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing. Always have on hand a first-aid kit, together with proper instructions.

Environmental exposure controls

General advice	:	Discharge into the environment must be avoided. Prevent further leakage or spillage. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.
Soil	:	Avoid subsoil penetration.
Water	:	Do not flush into surface water or sanitary sewer system. Retain and dispose of contaminated wash water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	Liquid
Colour	:	Light brown
Odour	:	Amyl acetate-like
Flash point	:	66,6 °C
Ignition temperature	:	Not auto-flammable
Lower explosion limit	:	Not applicable
Upper explosion limit	:	Not applicable

Explosive properties	:	Not explosive
Flammability	:	Not applicable
Oxidising properties	:	Not oxidising
Decomposition temperature	:	ca. 310 °C (Active substance)
pH	:	3,49 Conc.: 1 %
Melting point/melting range	:	36,1 - 36,6 °C (Active substance)
Boiling point/boiling range	:	99,8 °C at 4,2 Pa (Active substance)
Vapour pressure	:	0,00216 Pa at 25 °C (Active substance)
Density	:	1,01 g/cm3 at 20 °C
Relative density	:	1,01 at 20 °C
Solubility in water	:	1,1 g/l at pH 3,5 at 25 °C (Active substance) 2,8 g/l at pH 4,9 at 25 °C (Active substance) 10,2 g/l at pH 5,5 at 25 °C (Active substance) 21,1 g/l at pH 8,2 at 25 °C (Active substance)
Partition coefficient n-octanol/water	:	Log Pow: 1,5 at pH 5 at 25 °C (Active substance) Log Pow: -0,29 at pH 6,9 at 25 °C (Active substance)

		Log Pow: -2,1 at pH 8,9 at 25 °C (Active substance)
Dynamic viscosity	:	6,95 - 11,43 mPa.s at 20 °C
Kinematic viscosity	:	Non-newtonian liquid
Relative vapour density	:	No data available
Particle size	:	Not applicable

9.2 Other information

No additional information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

None known.

10.4 Conditions to avoid

Extremes of temperature and direct sunlight.

10.5 Incompatible materials

None.

10.6 Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapours.
Other hazardous decomposition products may be formed.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No. 1272/2008

Acute toxicity

Component

Acute oral toxicity

Trinexapac-ethyl 95266-40-3	:	LD50 Oral: 4.210 mg/kg Species: Rat Remarks: Single dose

Component

Acute inhalation toxicity

Trinexapac-ethyl 95266-40-3	:	LD50: > 5,3 mg/l Exposure time: 4 h Species: Rat Remarks: Nose only.

Component

Acute dermal toxicity

Trinexapac-ethyl 95266-40-3	:	LD50 Dermal: > 4.000 mg/kg Species: Rat Remarks: 24 h

Skin corrosion/irritation

Component

Skin irritation

Trinexapac-ethyl 95266-40-3	:	Species: Rabbit Results: No skin irritation Exposure time: 4 h

Serious eye damage/eye irritation

Component

Eye irritation

Trinexapac-ethyl 95266-40-3	:	Species: Rabbit Results: No eye irritation Remarks: Single dose

Respiratory or skin sensitization

Component

Sensitisation

Trinexapac-ethyl 95266-40-3	:	Results: The product is a skin sensitizer, sub-category 1B.

Germ cell mutagenicity

Component

Trinexapac-ethyl	:	In vivo tests did not show mutagenic effects.

95266-40-3

Carcinogenicity

Component

Trinexapac-ethyl 95266-40-3	:	Animal testing did not show any carcinogenic effects., The substance is considered not likely to pose a carcinogenic risk to humans.

Reproductive toxicity

Component

Effects on fertility

Trinexapac-ethyl 95266-40-3	:	Species: Rat General toxicity parent: NOAEL: 106,2 mg/kg bw/day General toxicity F1: NOAEL: 662,9 mg/kg bw/day General toxicity F2: NOAEL: 662,9 mg/kg bw/day

Effects on foetal development

Trinexapac-ethyl 95266-40-3	:	Species: Rat General Toxicity Maternal: NOAEL: >= 1.000 mg/kg bw/day Developmental Toxicity: NOAEL: 200 mg/kg bw/day Species: Rabbit General Toxicity Maternal: NOAEL: 60 mg/kg bw/day Developmental Toxicity: NOAEL: 60 mg/kg bw/day

Specific target organ toxicity - single exposure

Component

Trinexapac-ethyl 95266-40-3	:	Remarks: No data available

Specific target organ toxicity - repeated exposure

Component

Trinexapac-ethyl 95266-40-3	:	Remarks: No data available

Aspiration hazard

Component

Trinexapac-ethyl	:	No data available

95266-40-3

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

Product

Toxicity to fish : LC50: 67,265 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (Rainbow trout)

Product

Toxicity to daphnia and other aquatic invertebrates. : EC50: 30,09 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)

Product

Toxicity to algae and aquatic plants : ErC50: 150,985 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (Green algae)

: ErC50: 13,4 mg/l
Exposure time: 14 d
Species: Lemna gibba (Gibbous duckweed)

Component

M-Factor Chronic aquatic toxicity

Trinexapac-ethyl : 1
95266-40-3

Component

Toxicity to fish (Chronic toxicity)

Trinexapac-ethyl 95266-40-3	:	0,41 mg/l Exposure time: 35 d Species: Pimephales promelas (Fathead minnow) Test Type: Flow-through test

Component

Toxicity to daphnia and other aquatic invertebrates. (Chronic toxicity)

Trinexapac-ethyl 95266-40-3	:	2,4 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test Type: Flow-through test

12.2 Persistence and degradability

Component

Stability in soil

Trinexapac-ethyl 95266-40-3	:	DT50: 0,72 d

12.3 Bioaccumulative potential

Component

Bioaccumulation

Trinexapac-ethyl 95266-40-3	:	Bioconcentration factor (BCF): 6 Remarks: BCF unit = L/kg wwt for whole fish tissue.

Component

Partition coefficient n-octanol/water

Trinexapac-ethyl 95266-40-3	:	Log Pow: 1,5 (25 °C) pH: 5
	:	Log Pow: -0,29 (25 °C) pH: 6,9
		Log Pow: -2,1 (25 °C) pH: 8,9

12.4 Mobility in soil

Trinexapac-ethyl 95266-40-3	:	Koc: 60 Koc unit: mL/g

12.5 Results of PBT and vPvB assessment

Product

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

12.6 Endocrine disrupting properties

Product:

Assessment	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Component

Additional ecological information

Trinexapac-ethyl 95266-40-3	:	No additional information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations. The product should not be allowed to enter drains, water courses or the soil.
Contaminated packaging	:	Triple rinse containers. Do not re-use empty containers. Store containers and offer for recycling of material when in accordance with the local regulations.

SECTION 14: Transport information

14.1 UN number or ID number

ADR	:	UN 3082

IMDG : UN 3082

IATA : UN 3082

14.2 UN proper shipping name

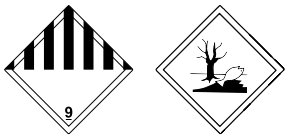
ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Trinexapac-ethyl)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Trinexapac-ethyl)

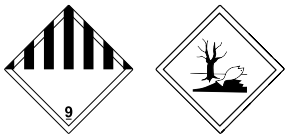
IATA : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Trinexapac-ethyl)

14.3 Transport hazard class(es)

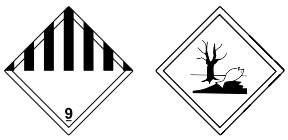
ADR : 9



IMDG : 9



IATA : 9



14.4 Packing group

ADR

Packing group	:	III
Hazard identification No	:	90
Labels	:	9
Tunnel restriction code	:	(-)
Limited quantity	:	5,00 L

IMDG

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

IATA (Cargo)

Packing instruction (cargo aircraft)	:	964
Maximum quantity	:	450,00 L
Packing instruction (LQ)	:	Y964
Packing group	:	III
Labels	:	Miscellaneous dangerous substance or article

IATA (Passenger)

Packing instruction (passenger aircraft)	:	964
Maximum quantity	:	450,00 L
Packing instruction (LQ)	:	Y964
Packing group	:	III
Labels	:	Miscellaneous dangerous substance or article

14.5 Environmental hazards

ADR

Environmentally hazardous : Yes

IATA (Passenger)

Environmentally hazardous : Yes

IATA (Cargo)

Environmentally hazardous : Yes

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Major Accident Hazard Legislation	:	Legislation on the control of major-accident hazards involving dangerous substances E2

SEVESO

SEVESO category:Hazardous to the Aquatic Environment in Category Chronic 2

15.2 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

Full text of hazard statements referred to under Section 2 and 3.

H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road; ATE – Acute toxicity estimate; BCF - Bioconcentration factor; bw – Body weight; EC number – European Community number; ECx – Concentration associated with x % response; EmS – Emergency Schedule; ErCx – Concentration associated with x % growth rate response; GLP – Good Laboratory Practice; IATA – International Air Transport Association; IC50 – Half maximal inhibitory concentration; IMDG – International Maritime Dangerous Goods; IMO – International Maritime Organization; LC50 – Lethal Concentration to 50 % of a test population; LD50 – Lethal Dose to 50 % of a test population (Median Lethal Dose); M-factor – Multipying factor; N.O.S. – Not Otherwise Specified; NO(A)EC – No Observed (Adverse) Effect Concentration; NO(A)EL – No Observed (Adverse) Effect Level; OECD – Organization for Economic Co-operation and Development; OEL – Occupacional exposure limit; PBT – Persistent, Bioaccumulative and Toxic substance; SCL – Specific Concentration Limit; TWA – Time-weighted average; UFI – Unique formula identifier; UN – United Nations; vPvB – Very Persistent and Very Bioaccumulative

Other information

Other information : Update of section 1.4

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.