

Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: LIFE SCIENTIFIC TRINEX
Product Code: 011-01

Unique Formula Identifier (UFI) JUWT-097V-6005-PKUQ

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

Product Use: Plant Growth Regulator

1.3 Details of the supplier of the safety data sheet

Company: Life Scientific Ltd,
Block 4,
Belfield Office Park,
Beech Hill Road,
Dublin 4
Ireland
Telephone: +353 (0) 1 2832024
Email: info@lifescientific.com
Web: www.lifescientific.com

1.4 Emergency contact information

In case of Emergency: Tel. NPIC +353 (01) 809 2166 (8.00 a.m. to 10.00 p.m. - Public)
Tel. NPIC +353 (01) 809 2566 (Healthcare Professionals)

Section 2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EU) No. 1272/2008

Skin Sens.	Category 1	H317
Specific target organ toxicity-repeated exposure	Category 2	H373
Aquatic acute	Category 1	H400
Aquatic chronic	Category 1	H410

2.2 Label Elements

Labelling according to Regulation (EU) 1272/2008

Hazard Pictograms:



Signal Word:

Warning

Hazard Phrases:

H317	May cause an allergic skin reaction
H373	May cause damage to organs through prolonged or repeated exposure
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Phrases:

P102 Keep out of reach of children.
P260 Do not breathe dust/fume/gas/mist/vapours/spray
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/clothing
P314 Get medical advice/attention if you feel unwell.
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 triple rinsed empty containers which can be disposed of as non-hazardous waste

Other Phrases:

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

2.3 Other Hazards

This 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.

Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

No substances fulfil the criteria set out in Annex II, Part A of the REACH Regulation (EC) No 1907/2006.

3.2 Mixtures

Chemical Name	CAS	EC	Classification (Regulation (EC) No 1272/2008)	Concentration (% w/w)
Trinexapac-ethyl	95266-40-3	-	Aquatic Chronic 2; H411	25
Poly(oxy-1,2-ethanediyl), .alpha.-isotridecyl-.omega.- hydroxy	9043-30-5	-	Acute Tox. 4; H302 Eye Dam. 1; H318	20 – 30

Section 4. FIRST AID MEASURES

4.1 Description of first aid measures

General information: Have the product container, label or Safety Data Sheet with you when calling the emergency number, a Poison Control Centre or physician, or going for treatment.

Inhalation: 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.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting.

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.

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.

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.

Section 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Extinguishing media - small fires
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media - large fires
Alcohol-resistant foam

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 Firefighting: 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. Flash back possible over considerable distance

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 firefighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

Section 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. Keep people away from and upwind of spill/leak. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Remove all sources of ignition. Pay attention to flashback.

6.2 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 materials for containment and 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.

Section 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. When using do not eat, drink or smoke. Use only in an area containing flame proof equipment. Take precautionary measures against static discharges. For personal protection see section 8.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from combustible material. Keep in an area equipped with sprinklers. Keep away from food, drink and animal feeding stuffs. No smoking

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)

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

Section 8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters

Component	CAS No.	Exposure Limit	Value Type	Source
Trinexapac-ethyl	95266-40-3	5 mg/m3	TWA	Supplier

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.
Eye protection:	No special protective equipment required.
Hand protection:	Chemical resistant gloves are not usually required. Select gloves based on the physical job requirements. Material : Nitrile rubber Break through time : > 480 min Glove thickness : 0.5 mm
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

Environmental exposure controls

Water:	Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. If the product contaminates
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Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Liquid.
Colour:	Yellow to red brown
Odour:	Unpleasant
Melting point (°C):	No data available
Boiling point/boiling range:	No data available
Flammability:	No data available
Upper explosion limit / Upper flammability limit	No data available
Lower explosion limit / Lower flammability limit	No data available
Flash point:	80 °C Method: Pensky-Martens closed cup
Auto-ignition temperature:	250 °C
Decomposition temperature:	No data available
pH:	2 - 6 Concentration: 1 % w/v
Viscosity	
Viscosity, dynamic:	10.01 mPa.s (20 °C) 5.45 mPa.s (40 °C)
Viscosity, kinematic:	No data available
Solubility(ies)	
Solubility in other solvents:	No data available
Partition coefficient n-octanol/ water:	No data available
Density:	0.96 - 1.00 g/cm ³ (20 °C)
Relative vapour density:	No data available
Particle characteristics	
Particle size:	data available

9.2 Other Information

Explosives:	Not explosive
Oxidizing properties:	The substance or mixture is not classified as oxidizing.
Evaporation rate:	No data available
Miscibility with water:	Miscible
Surface tension:	28.2 - 28.5 mN/m, 20 °C

Section 10. STABILITY AND REACTIVITY

10.1 Reactivity

None reasonably foreseeable.

10.2 Chemical Stability

Stable under normal conditions

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use

10.4 Conditions to avoid

No decomposition if used as directed.

10.5 Incompatible material

None known

10.6 Hazardous decomposition products

No hazardous decomposition products are known

Section 11. TOXICOLOGICAL INFORMATION

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

Acute oral toxicity:	LD50 (Rat, male and female): > 5,000 mg/kg (similar product)
Acute inhalation toxicity:	LC50 (Rat, male and female): > 2.51 mg/L (similar product) 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
Skin corrosion/irritation: (Rabbit)	No skin irritation
Serious eye damage/eye irritation (Rabbit)	No eye irritation
Respiratory or skin Sensitisation (Guinea pig)	May cause sensitisation by skin contact
Germ cell mutagenicity:	Animal testing did not show any mutagenic effects
Carcinogenicity:	No evidence of carcinogenicity in animal studies.
Reproductive toxicity:	No toxicity to reproduction.
STOT - repeated exposure:	The substance or mixture is not classified as specific target organ toxicant, repeated exposure

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment: The 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

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/aquatic plants:	ErC50 (Anabaena flos-aquae (cyanobacterium)): 8.3 mg/l Exposure time: 96 h ErC50 (Lemna gibba (gibbous duckweed)): 55 mg/l Exposure time: 7 d NOEC (Anabaena flos-aquae (cyanobacterium)): 8.0 mg/l End point: Growth rate Exposure time: 96 h NOEC (Lemna gibba (gibbous duckweed)): 8.0 mg/l End point: Frond growth Exposure time: 7 d

12.2 Persistence and degradability

Trinexapac-ethyl (ISO):	
Biodegradability:	Result: Not readily biodegradable.
Stability in water:	Degradation half life: 3.9 - 5.5 d Remarks: Product is not persistent

12.3 Bioaccumulative potential

Trinexapac-ethyl (ISO):	
Bioaccumulation:	Remarks: Does not bioaccumulate.
Partition coefficient: octanol/ Water	log Pow: -2.1 (25 °C) log Pow: -0.29 (25 °C) log Pow: 1.5 (25 °C)

12.4 Mobility in soil

Trinexapac-ethyl (ISO):	
Distribution among environmental compartments:	Remarks: Moderately mobile in soils
Stability in soil: Percentage dissipation:	Dissipation time: < 0.2 d 50 % (DT50)

12.5 Results of PBT and vPvB 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.

12.6 Endocrine disrupting properties

Product:
Assessment: The 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

No data available.

Section 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 15 01 10, packaging containing residues of or contaminated by hazardous substances.

Section 14. TRANSPORT INFORMATION

Transport the product in accordance with the provisions of ADR for road, RID for rail, IMDG for the sea, and ICAO / IATA for air transport

14.1 UN Number

3082.

14.2 UN proper shipping name

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

14.3 Transport hazard class(es)

9

14.4 Packing group

III

14.5 Environmental hazards

Environmentally hazardous, Marine pollutant

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 regulation/legislation specific for the substance or mixture

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.

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.

Section 16. OTHER INFORMATION

Full list of relevant hazard and precautionary statements that were not given in full in sections 2 and 3.

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

The information presented in this document is accurate to the best of our knowledge at the date of its publication. However, the information given is designed only as a guide for the methods of handling, storage, use, transportation and disposal of the product and is not considered a warranty or quality specification. Life Scientific Limited cannot be held responsible for any loss or damage resulting from the handling, storage, use or disposal of the product. The information contained in this document relates only to this specific product.

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