

Infosafe No™ 3NV00 Issue Date : October 2018 ISSUED by NUFARM

Product Name **T-REX Selective Herbicide**

Classified as hazardous

## 1. Identification

<b>GHS Product Identifier</b>	T-REX Selective Herbicide
<b>Product Code</b>	0614
<b>Product Type</b>	Group F I Herbicide
<b>Company Name</b>	NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
<b>Address</b>	103-105 Pipe Road Laverton North Victoria 3026 Australia
<b>Telephone/Fax Number</b>	Tel: +61 3 9282-1000 Fax: +61 3 9282-1001
<b>Emergency phone number</b>	1800 033 498 (24hr Australia)
<b>Recommended use of the chemical and restrictions on use</b>	For the control of certain broadleaf weeds in winter cereals and clover as specified in the Directions for Use table on the label.
<b>Other Information</b>	This Safety Data Sheet describes the properties of the concentrated product. The physical properties and the assessments may not apply to the properties of the product once it has been diluted for application.

## 2. Hazard Identification

<b>GHS classification of the substance/mixture</b>	TR1 Toxic to Reproduction: Category 1 ED2A Eye Damage/Irritation: Category 2A SE-3RES STOT Single Exposure Category 3 (respiratory tract irritation) SC-2 Skin Corrosion/Irritation: Category 2 OT4 Acute Toxicity - Oral: Category 4 AC1 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1
<b>Signal Word (s)</b>	DANGER
<b>Hazard Statement (s)</b>	H360 May damage fertility or the unborn child. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H315 Causes skin irritation. H302 Harmful if swallowed; H312 Harmful in contact with skin; and H332 Harmful if inhaled. H410 Very toxic to aquatic life with long lasting effects.
<b>General Precautionary Statement (s)</b>	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read label before use.
<b>Pictogram (s)</b>	Exclamation mark, Health hazard, Environment, The below pictograms are GHS Hazard symbols for workplace use only. See SECTION 14 for Dangerous Goods information.



<b>Precautionary statement – Prevention</b>	P202 Do not handle until all safety precautions have been read and understood. P264 Wash hands and exposed skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear eye protection/face protection. P261 Avoid breathing spray; and P271 Use only outdoors or in a well-ventilated area.
<b>Precautionary statement – Response</b>	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. P308+P313 IF exposed or concerned: Get medical advice/attention. P362 Take off contaminated clothing and wash before reuse. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P332+P313 If skin irritation occurs: Get medical advice/attention.

Infosafe No™ 3NV00	Issue Date : October 2018	ISSUED by NUFARM
--------------------	---------------------------	------------------

 Product Name **T-REX Selective Herbicide**

Classified as hazardous

**Precautionary statement – Storage**  
**Other Information**

P311 Call a POISON CENTER or doctor/physician.  
 P301+P330 IF SWALLOWED: Rinse mouth.  
 P405 Store locked up.  
 Poisons Schedule S5

### 3. Composition/information on ingredients

Chemical Characterization	Liquid		
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	MCPA present as the ethyl hexyl ester	94-74-6	250 g/L
	Diflufenican	83164-33-4	25 g/L
	N-Methyl-2-pyrrolidone	872-50-4	362 g/L
	Nonoxynol	9016-45-9	10-30 %

### 4. First-aid measures

**Inhalation** Remove affected person to fresh air until recovered. If symptoms develop or persist, seek medical advice.

**Ingestion** Rinse mouth and then drink plenty of water.  
 If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust). Make every effort to prevent vomit from entering the lungs by careful placement of the patient.

**Skin** Wash affected areas thoroughly with soap and water.  
 Remove contaminated clothing and launder before re-use.

**Eye contact** If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes.  
 Seek medical advice immediately.

**First Aid Facilities** If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.

**Advice to Doctor** Treat symptomatically.  
 If vomiting occurs, solvent present may cause pulmonary pneumonitis.

### 5. Fire-fighting measures

**Suitable extinguishing media** Water fog, foam, carbon dioxide or dry chemical.  
 Avoid using large volumes of water which would spread the product.

**Hazards from Combustion Products** If involved in a fire, it will emit oxides of carbon, oxides of nitrogen and possibly hydrogen flouride or phosgene.

**Special Protective Equipment for fire fighters** Breathable air apparatus may have to be worn if material is involved in fires especially in confined spaces.

**Other Information** STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

### 6. Accidental release measures

**Spills & Disposal** Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite).  
 Collect spilled material and waste in sealable open-top type containers for disposal.  
 On-site disposal of concentrate is not acceptable.

**Personal Protection** For appropriate personal protective equipment (PPE), refer Section 8.

**Clean-up Methods - Large Spillages** Place damaged containers in recovery bins (if available) and return to manufacturer.  
 If large liquid spills occur, attempt to recover as much spilt material from sumps and bunded areas, as possible, before absorbing remaining material into vermiculite or other absorbent.

**Environmental Precautions** This product is a herbicide and spills can damage crops, pastures and desirable vegetation.  
 Use earthen bunds or absorbent bunding to prevent spreading of spillage.

Infosafe No™ 3NV00	Issue Date : October 2018	ISSUED by NUFARM
--------------------	---------------------------	------------------

Product Name **T-REX Selective Herbicide**

Classified as hazardous

Prevent from entering drains, waterways or sewers.

## 7. Handling and storage

<b>Conditions for safe storage, including any incompatibilities</b>	Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.
<b>Unsuitable Materials</b>	Rubber components present in some spraying units may be affected by exposure to the solvents in Nugrex. Wash spray unit thoroughly with boom cleaner and fresh water after use.
<b>Other Information</b>	Do not use on or in situations where damage to susceptible crops or plants such as cotton, tobacco, tomatoes, flowers, vines, fruit trees or other susceptible crop plants may result from direct application or drift. Sprayed weeds may become more palatable to stock and a higher intake of some weeds may result in stock poisoning and death from causes such as nitrate poisoning. Care should be taken especially where capeweed, Paterson's curse and variegated thistles predominate in the pasture. Always read the label and any attached leaflet before use.

## 8. Exposure controls/personal protection

<b>Occupational exposure limit values</b>	No exposure standard has been established for this product. Permissible Exposure Level (PEL) for diflufenican recommended by the manufacturer is 2.3 mg/m <sup>3</sup> . Safe Work Australia has set the following exposure standard for N-methyl pyrrolidone : TLV (TWA) 103 mg/m <sup>3</sup> , STEL 309 mg/m <sup>3</sup> . SK 'SK' notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.
<b>Appropriate engineering controls</b>	Handle in well ventilated areas, generally natural ventilation is adequate.
<b>Personal Protective Equipment</b>	When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles.
<b>Hygiene Measures</b>	After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash contaminated clothing and safety equipment.
<b>Requirements Concerning Special Training</b>	Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

## 9. Physical and chemical properties

<b>Form</b>	Liquid
<b>Appearance</b>	Clear, dark brown liquid
<b>Odour</b>	Distinctive strong ester odour
<b>Melting Point</b>	<0°C
<b>Boiling Point</b>	between 176 - 200°C (solvent)
<b>Solubility in Water</b>	Forms an emulsion in water.
<b>Specific Gravity</b>	1.063
<b>Vapour Pressure</b>	1.77 mPa for MCPA 2EHE @ 25°C; 4.25 x 10 <sup>-3</sup> mPa for diflufenican @ 25°C
<b>Partition Coefficient: n-octanol/water</b>	Kow Log P is 5.37 for MCPA 2EHE; 4.9 for diflufenican
<b>Flash Point</b>	103°C
<b>Flammability</b>	Combustible liquid C2. (AS1940 - 2017). A C2 combustible liquid is not a combustible liquid within the meaning of the Australian Code for the Transport of Dangerous Goods by Road & Rail.

## 10. Stability and reactivity

<b>Chemical Stability</b>	Stable under normal conditions.
---------------------------	---------------------------------

Infosafe No™ 3NV00	Issue Date : October 2018	ISSUED by NUFARM
--------------------	---------------------------	------------------

 Product Name **T-REX Selective Herbicide**

Classified as hazardous

<b>Incompatible Materials</b>	Avoid contact with rubber.
<b>Possibility of hazardous reactions</b>	Keep away from strong oxidising agents. May react exothermically with strong alkalis and acids.
<b>Hazardous Polymerization</b>	Hazardous polymerisation is not possible.

## 11. Toxicological Information

<b>Toxicology Information</b>	No harmful effects are expected if the precautions on the label and this MSDS are followed.
<b>Acute Toxicity - Oral</b>	LD50 (rat) 1580 mg/kg for the formulated product
<b>Acute Toxicity - Dermal</b>	LD50 (rat) >2040 mg/kg for the formulated product
<b>Acute Toxicity - Inhalation</b>	LC50 (rat) (4hr) >4.5 mg/l for MCPA 2EHE LC50 (rat) (4hr) >5.11 mg/l for diflufenican
<b>Ingestion</b>	Possible symptoms of exposure include: nausea, vomiting and gastrointestinal discomfort and diarrhoea.
<b>Inhalation</b>	May cause respiratory irritation characterised by local redness, swelling, itching or pain with symptoms including cough, pain, choking and breathing difficulties.
<b>Skin</b>	Prolonged contact with the concentrate can cause defatting of the skin and may result in dermatitis. Symptoms of over exposure may be similar to those described for ingestion.
<b>Eye</b>	The concentrate will cause irritation of the eyes.
<b>Skin Sensitisation</b>	Prolonged and repeated skin contact may result in skin sensitisation.
<b>Reproductive Toxicity</b>	The solvent, N-methyl pyrrolidone (NMP), may cause effects on the cardiovascular and skeletal systems of developing embryos.
<b>Chronic Effects</b>	Chronic Overexposure: Weight loss and damage to liver and kidneys may be expected if exposure is excessive.
<b>Serious eye damage/irritation</b>	The product is an eye irritant.
<b>Skin corrosion/irritation</b>	The product is a skin irritant.
<b>Other Information</b>	The Australian Acceptable Daily Intake (ADI) for MCPA for a human is 0.01 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 1.1 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Aust Govt Dept. of APVMA, 'ADI List', June 2018). ADI for diflufenican is 0.2 mg/kg/day, NOEL 16.3 mg/kg/day.

## 12. Ecological information

<b>Persistence and degradability</b>	Average field half life of MCPA 2EHE is 24 days. Average field half life of diflufenican is 100 - 200 days.
<b>Other Precautions</b>	Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.
<b>Environmental Protection</b>	Spray drift can cause damage, read the label for more information.
<b>Acute Toxicity - Fish</b>	LC50 (96hr) for rainbow trout is 50 mg/l for MCPA acid LC50 (96hr) for rainbow trout is 56 - 100 mg/l for diflufenican MCPA 2EHE has very low water solubility (0.1 mg/l) and rapidly hydrolyses in natural waters. The above data is for the hydrolysis product: MCPA acid.
<b>Acute Toxicity - Daphnia</b>	EC50 (48hr) for daphnia is >190 mg/l for MCPA acid. EC50 (48hr) for daphnia is >10 mg/l for diflufenican.
<b>Acute Toxicity - Algae</b>	EC50 for Scenedesmus subcapitata is 0.00025 mg/l for diflufenican
<b>Acute Toxicity - Other Organisms</b>	LD50 for quail is 377 mg/kg for MCPA 2EHE LD50 for quail is >2150 mg/kg for diflufenican Not toxic to bees.

## 13. Disposal considerations

Infosafe No™ 3NV00	Issue Date : October 2018	ISSUED by NUFARM
--------------------	---------------------------	------------------

 Product Name **T-REX Selective Herbicide**

Classified as hazardous

<b>Product Disposal</b>	On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).
<b>Container Disposal</b>	Do not use this container for any other purpose. Triple or preferably pressure rinse containers before disposal. Add rinsings to the spray tank. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, puncture or shred and bury containers in local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. drumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMUSTER symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program. Returnable containers: empty contents fully into application equipment. Replace cap, close all valves and return to the point of supply for refill or storage.

## 14. Transport information

<b>Transport Information Storage and Transport</b>	It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs. Considered non dangerous for road and rail transport (in packaging, including IBCs not greater than 3000 Lt each) by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Ref: ADG7; SP No. AU01.
<b>UN Number (Sea Transport)</b>	For bulk shipments as Class 9, use UN 3082, HazChem code 2Z. 3082
<b>IMO Class/Packing Group</b>	Class 9
<b>IMO Proper Shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains diflufenican)

## 15. Regulatory information

<b>Regulatory Information</b>	Australia: WHS regulations (2011) - Schedule 11: classification not listed.
<b>Poisons Schedule</b>	S5
<b>Packaging &amp; Labelling</b>	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
<b>Other Information</b>	This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 68008.

## 16. Other Information

<b>Date of preparation or last revision of SDS</b>	Revised 24/10/2018 This SDS replaces document dated July 2017.
<b>Contact Person/Point</b>	Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000 After Hours: Shift Supervisor Phone: 1800 033 498
<b>Revisions Highlighted</b>	The SDS was reviewed. Minor changes were made to the information. Flammability information in section 9 has been updated. ...End Of MSDS...



# Safety Data Sheet

infosafe  
CS: 1.7.2

Page: 6 of 6

Infosafe No™ 3NV00

Issue Date : October 2018

ISSUED by NUFARM

Product Name **T-REX Selective Herbicide**

Classified as hazardous

Copyright in the source code of the HTML, PDF, XML, XFO and any other electronic files rendered by an Infosafe system for Infosafe MSDS displayed is the intellectual property of Acohs Pty Ltd.

Copyright in the layout, presentation and appearance of each Infosafe MSDS displayed is the intellectual property of Acohs Pty Ltd. The compilation of MSDS's displayed is the intellectual property of Acohs Pty Ltd.

Copying of any MSDS displayed is permitted for personal use only and otherwise is not permitted. In particular the MSDS's displayed cannot be copied for the purpose of sale or licence or for inclusion as part of a collection of MSDS without the express written consent of Acohs Pty Ltd.