

Infosafe No™ 3NV0Y	Issue Date : July 2018	ISSUED by NUFARM
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 Product Name **VETERAN C Seed Dressing Liquid**

Classified as hazardous

## 1. Identification

<b>GHS Product Identifier</b>	VETERAN C Seed Dressing Liquid
<b>Product Code</b>	5709
<b>Product Type</b>	Group 3 Fungicide Group 3A Insecticide
<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>	Liquid seed dressing treatment for wheat, barley, oats and triticale to protect against smuts and bunt and for protection against insect pests of stored grain as per the directions for use table on the label.
<b>Other Information</b>	

## 2. Hazard Identification

<b>GHS classification of the substance/mixture</b>	TR1 Toxic to Reproduction: Category 1 OT4 Acute Toxicity - Oral: Category 4 SC-2 Skin Corrosion/Irritation: Category 2 ED2A Eye Damage/Irritation: Category 2A SE-3RES STOT Single Exposure Category 3 (respiratory tract irritation) FL4 Flammable Liquids: Category 4
<b>Signal Word (s)</b>	DANGER
<b>Hazard Statement (s)</b>	H360 May damage fertility or the unborn child. H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H227 Combustible liquid.
<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>	Health hazard, Exclamation mark, 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. P281 Use personal protective equipment as required. P264 Wash hands and exposed skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves, clothing, eye and face protection. P261 Avoid breathing mist and spray.
<b>Precautionary statement – Response</b>	P308+P313 IF exposed or concerned: Get medical advice/attention. P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P330 Rinse mouth. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P332+P313 If skin irritation occurs: Get medical advice/attention. P362 Take off contaminated clothing and wash before reuse. 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.

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P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

**Other Information** Poisons Schedule S6

### 3. Composition/information on ingredients

**Chemical** Liquid

**Characterization**
**Ingredients**

Name	CAS	Proportion
Flutriafol	76674-21-0	25 g/L
Cypermethrin	52315-07-8	4 g/L
Ethylene Glycol	107-21-1	495 g/L
Dipropylene glycol monomethyl ether	34590-94-8	30-60 %
N-methyl pyrrolidone		0-10 %
Other non hazardous ingredients		0-10 %

### 4. First-aid measures

<b>Inhalation</b>	Remove affected person to fresh air until recovered. If breathing is difficult, oxygen may be given by a trained person. Apply CPR if there is no breathing and NO pulse. Obtain medical advice.
<b>Ingestion</b>	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. Seek medical advice immediately.
<b>Skin</b>	If skin contact occurs, remove contaminated clothing and wash skin thoroughly with water. If irritation persists, seek medical advice.
<b>Eye contact</b>	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice immediately.
<b>First Aid Facilities</b>	If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.
<b>Advice to Doctor</b>	Due to high content of ethylene glycol in this product, treatment with ethyl alcohol is indicated if toxic ingestion is suspected or if there is metabolic acidosis following ingestion of this product. Administer ethyl alcohol sufficient to maintain blood ethyl alcohol levels of about 100 mg/dL. 4-Methylpyrazole (fomepizole, antizole) is also a recognized antidote for ethylene glycol.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog, foam, carbon dioxide or dry chemical.
<b>Hazards from Combustion Products</b>	Combustible liquid at high temperatures. If involved in a fire, the dehydrated components may emit oxides of carbon, oxides of nitrogen and possibly hydrogen fluoride.
<b>Special Protective Equipment for fire fighters</b>	Breathable air apparatus may have to be worn if material is involved in fires especially in confined spaces.
<b>Other Information</b>	STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

### 6. Accidental release measures

<b>Spills &amp; Disposal</b>	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.
<b>Personal Protection</b>	For appropriate personal protective equipment (PPE), refer Section 8.

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**Environmental Precautions** Use earthen bunds or absorbent bunding to prevent spreading of spillage. Prevent from entering drains, waterways or sewers.

## 7. Handling and storage

**Precautions for Safe Handling** Seed treated with this product must not be used for human consumption or be allowed to contaminate seed intended for human consumption.

**Conditions for safe storage, including any incompatibilities** Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight. Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs. Store in a locked enclosure. Treated seed, when stored, should be kept apart from other seed. The containers should be clearly marked to indicate the contents have been treated with this product.

**Tank Cleaning** Equipment should be cleaned with methylated spirits, not water.

**Other Information** Always read the label and any attached leaflet before use.

## 8. Exposure controls/personal protection

Occupational exposure limit values	Name	STEL		TWA		Footnote
		mg/m3	ppm	mg/m3	ppm	
	Ethylene Glycol			10		
	Dipropylene glycol monomethyl ether			308	50	
	N-methyl pyrrolidone	309	75	103	25	
<b>Other Exposure Information</b>	No exposure standard has been established for this product, however, an exposure standard has been recommended by the supplier for flutriafol at 1.5 mg/m3.					
<b>Appropriate engineering controls</b>	'SK' notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur. Handle in well ventilated areas, generally natural ventilation is adequate.					
<b>Personal Protective Equipment</b>	It is good practice to wear suitable personal protective equipment (PPE). 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 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

**Form** Liquid

**Appearance** Red liquid

**Solubility in Water** Soluble in water.

**Specific Gravity** 1.05

**Vapour Pressure** 7.1 x 10<sup>-6</sup> mPa for flutriafol @ 20°C;  
2 x 10<sup>-4</sup> mPa for cypermethrin @ 20°C.

**Partition Coefficient: n-octanol/water** Kow Log P is 2.3 for flutriafol; and 6.6 for cypermethrin

**Flash Point** 82.5°C

**Flammability** Combustible liquid C1.

## 10. Stability and reactivity

**Conditions to Avoid** Excessive heat and fire.

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<b>Possibility of hazardous reactions</b>	Keep away from strong oxidising agents, may react violently.
<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. Most of the effects below are due to ethylene glycol.
<b>Acute Toxicity - Oral</b>	LD50 (rat) 1140 mg/kg for flutriafol LD50 (rat) 250 - 4150 mg/kg for cypermethrin LD50 (rat) 4700 mg/kg for ethylene glycol LDLO Oral lowest lethal dose (human) is 398 mg/kg for ethylene glycol.
<b>Acute Toxicity - Dermal</b>	LD50 (rat) >1000 mg/kg for flutriafol
<b>Acute Toxicity - Inhalation</b>	LC50 (rat) (4hr) >5.2 mg/l for flutriafol LC50 (rat) (4hr) 2.5 mg/l for cypermethrin
<b>Ingestion</b>	Initial symptoms of ethylene glycol ingestion, following a large dose (>100ml), are those of alcohol intoxication (without the odour of ethanol) progressing to vomiting, cyanosis, headache, muscle tenderness, stupor, convulsions and unconsciousness. Respiratory system involvement may occur 12-24 hours after ingestion. Symptoms may include hyperventilation and rapid shallow breathing. From 24-72 hours, the patient may experience a decrease in urine output, flank pain progressing to renal failure which may be permanent. Death may occur from respiratory failure or pulmonary oedema.
<b>Inhalation</b>	May cause irritation to the respiratory tract. Headache, low back ache, drowsiness and irregular eye movements have been reported when high concentrations of ethylene glycol have been inhaled.
<b>Skin</b>	Can be absorbed through the skin but not readily absorbed in toxic amounts. Prolonged contact with the concentrate can cause defatting of the skin and may result in dermatitis.
<b>Eye</b>	The concentrate may cause irritation after short contact with the eyes, but permanent damage is not anticipated.
<b>Skin Sensitisation</b>	Skin contact may produce skin sensations such as numbing, burning and tingling. These sensations are reversible and usually subside within 12 hours.
<b>Carcinogenicity</b>	Data indicates no carcinogenic effects.
<b>Reproductive Toxicity</b>	Data indicates no teratogenic effects for flutriafol. At doses toxic to maternal animals, flutriafol has been shown to produce developmental toxicity in a number of species. The solvent, N-methyl pyrrolidone (NMP), may cause effects on the cardiovascular and skeletal systems of developing embryos.
<b>Chronic Effects</b>	Kidney damage has been noted in laboratory animals that have been fed excessive doses of ethylene glycol. Evidence from animal studies indicate that repeated or prolonged exposure to flutriafol (in significant quantities) can result in liver damage.
<b>Serious eye damage/irritation</b>	Flutriafol, cypermethrin and ethylene glycol are mild to slight eye irritants.
<b>Skin corrosion/irritation</b>	Flutriafol, cypermethrin and ethylene glycol are mild to slight skin irritants.
<b>Other Information</b>	The Australian Acceptable Daily Intake (ADI) for flutriafol 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 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: Comm. Dept. of Health and Ageing, Office of Chemical Safety, 'ADI List', December 2015). ADI for cypermethrin is 0.05 mg/kg/day, NOEL 5 mg/kg/day.

## 12. Ecological information

<b>Persistence and degradability</b>	Average field half life of cypermethrin in soil is 60 days. Flutriafol is essentially insoluble in water and has low mobility in soil. There is evidence of rapid degradation in soil and hydrolysis in water. The
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<b>Known Harmful Effects on the Environment</b>	expected half life in water is 5 days. The product is applied to seed for sowing - use pattern restricts movement into the environment. Harmful to fish.
<b>Other Precautions</b>	Do not contaminate dams, waterways or sewers with this product or the containers which have held this product. Do not feed or expose treated seed to wildlife and domestic animals, particularly birds.
<b>Acute Toxicity - Fish</b>	The following is data for the active ingredient, flutriafol. LC50 (96hr) for rainbow trout is 61 mg/l. The following is data for the ingredient, cypermethrin. LC50 (96hr) for rainbow trout is 0.00069 mg/l
<b>Acute Toxicity - Daphnia</b>	LC50 (48hr) for flutriafol is 78 mg/l. LC50 (48 hr) for cypermethrin is 0.0003 mg/l.
<b>Acute Toxicity - Other Organisms</b>	Not toxic to birds. LD50 for (flutriafol) mallard ducks, female is >5,000 mg/kg LD50 for (cypermethrin) mallard ducks is >10,000 mg/kg No threat to bees as product is used as a seed dressing.

### 13. Disposal considerations

<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®). Seed treated with this product must not be used for human or animal consumption or be allowed to contaminate seed intended for human or animal consumption. Seed should not be left exposed on the ground (particularly during sowing). Destroy treated seed not intended for sowing.
<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>IMDG UN No</b>	For bulk shipments as Class 9, use UN 3082, HazChem code 2Z. 3082
<b>IMDG Description</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains cypermethrin)
<b>IMDG Hazard Class</b>	Class 9



# Safety Data Sheet

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**IMDG Pack. Group** III  
**IMDG Marine pollutant** Marine Pollutant

## 15. Regulatory information

**Regulatory Information** WHS Schedule 11, item 10 ( flammable liquid, category 4 )  
**Poisons Schedule** S6  
**Packaging & Labelling** POISON  
KEEP OUT OF REACH OF CHILDREN  
READ SAFETY DIRECTIONS BEFORE OPENING OR USING  
**Other Information** This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 60146.

## 16. Other Information

**Date of preparation or last revision of SDS** Revised 10/07/2018  
Replaces document dated July 2017  
**Contact Person/Point** Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000  
After Hours: Shift Supervisor Phone: 1800 033 498  
**Revisions Highlighted** The SDS was reviewed. Minor changes were made to the information.  
Correction in section 16  
...End Of MSDS...

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