



Agriculture Division of DowDuPont

# SAFETY DATA SHEET

## DOW AGROSCIENCES (NZ) LIMITED

**Product name:** Starane™ Xtra Herbicide

**Issue Date:** 24.02.2017

DOW AGROSCIENCES (NZ) LIMITED encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

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## 1. PRODUCT AND COMPANY IDENTIFICATION

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**Product name:** Starane™ Xtra Herbicide  
**Identified uses:** End use herbicide product

### COMPANY IDENTIFICATION

DOW AGROSCIENCES (NZ) LIMITED  
89 PARITUTU ROAD  
4342 NEW PLYMOUTH  
NEW ZEALAND

**Customer Information Number:**

0800-803-939  
[fnpcust@dow.com](mailto:fnpcust@dow.com)

### EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:** +64 6 751 2407

**Local Emergency Contact:** 0800 844 455

**For medical advice, contact the New Zealand Poisons Information Centre:**

0800 POISON (0800 764 766)

**Transport Emergency Only Dial:** 111

This SDS may not provide exhaustive guidance for all the HSNO controls assigned to this substance. The NZ EPA website [www.epa.govt.nz](http://www.epa.govt.nz) should be consulted for a full list of triggered controls and cited regulations

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## 2. HAZARDS IDENTIFICATION

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### Hazard classification

NEW ZEALAND HAZARDOUS SUBSTANCES CLASSIFICATION: Classified as hazardous according to criteria in the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001. Refer to section 15 for HSNO Approval number.

**HSNO classifications:** 6.5B, 9.1B, 9.2A

### Hazards

May cause an allergic skin reaction.  
Toxic to aquatic life with long lasting effects.  
Very toxic to the soil environment.

**Prevention**

Avoid breathing mist/ vapours/ spray.  
Contaminated clothing should not be allowed out of the workplace.  
Wear protective gloves/ protective clothing and eye/ face protection.

**Response**

IF on skin: Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice/attention.  
Specific treatment – refer to Section 4: First Aid instructions  
Wash contaminated clothing before re-use.  
Collect spillage.

**Storage**

Store locked up.

**Disposal**

Dispose of contents/ container to an approved waste disposal plant.

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

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Component	CASRN	Concentration
Fluoroxypyr-meptyl (ISO)	81406-37-3	45.52 %
Solvent naphtha (petroleum), heavy arom.	64742-94-5	0.7 – 2.6 %
Benzenesulfonic acid, mono-C11-13- branched alkyl derivs., calcium salts	68953-96-8	< 3.0 %
N-methyl-2-pyrrolidone	872-50-4	< 0.5 %
Balance	Not available	48.4 – 50.3 %

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**4. FIRST AID MEASURES**

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**Consult the National Poisons Information Centre (0800 POISON (0800 764 766)) or a doctor in every case of suspected chemical poisoning. Never give fluids or induce vomiting if a patient is unconscious or convulsing regardless of cause of injury. If breathing difficulties occur seek medical attention immediately.**

**Description of first aid measures**

**General advice:** First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

**Skin contact:** Take off contaminated clothing. Wash skin with soap and plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash clothing before re-use. Shoes and other leather items which cannot be decontaminated should be disposed of properly. Suitable emergency safety shower facility should be available in manufacturing work area.

**Eye contact:** Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice. Suitable emergency eye wash facility should be available in work area.

**Ingestion:** No emergency medical treatment necessary.

**Most important symptoms and effects, both acute and delayed:** Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

**Indication of any immediate medical attention and special treatment needed**

**Notes to physician:** No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment. Skin contact may aggravate pre-existing dermatitis.

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## 5. FIREFIGHTING MEASURES

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**Hazchem Code:** ●2X

**Suitable extinguishing media:** Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

**Unsuitable extinguishing media:** Do not use direct water stream. May spread fire.

**Special hazards arising from the substance or mixture**

**Hazardous combustion products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Hydrogen fluoride. Hydrogen chloride. Carbon monoxide. Carbon dioxide.

**Unusual Fire and Explosion Hazards:** Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is produced when product burns.

**Advice for firefighters**

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Consider feasibility of a controlled burn to minimize environment damage. Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of re-ignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

**Special protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

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## 6. ACCIDENTAL RELEASE MEASURES

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**Personal precautions, protective equipment and emergency procedures:** Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to section 7: Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8: Exposure Controls and Personal Protection.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12: Ecological Information. Spills or discharge to natural waterways is likely to kill aquatic organisms.

**Methods and materials for containment and cleaning up:** Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Dow AgroSciences for clean-up assistance. See Section 13: Disposal Considerations, for additional information.

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## 7. HANDLING AND STORAGE

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**Precautions for safe handling:** Keep out of reach of children. Keep container closed. Avoid prolonged or repeated contact with skin. Avoid contact with eyes, skin, and clothing. Do not swallow. Avoid breathing vapour or mist. Wash thoroughly after handling. Use with adequate ventilation. See Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION.

**Conditions for safe storage:** Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

**This substance is subject to a requirement for an emergency management plan, secondary containment and signage, whenever it is held in quantities of 100 L or more, either alone or in aggregate with other hazardous substances. See Hazardous Substances Emergency Management and Identification Regulations.**

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Exposure limits are listed below, if they exist:

Component	Regulation	Type of listing	Value/Notation
Fluoroxypyr-meptyl (ISO)	Dow IHG	TWA	10 mg/m <sup>3</sup>
Solvent naphtha (petroleum), heavy arom.	Dow IHG Dow IHG ACGIH	TWA STEL TWA	100 mg/m <sup>3</sup> 300 mg/m <sup>3</sup> 200 mg/ m <sup>3</sup> total hydrocarbon vapour
N-methyl-2- pyrrolidone	US WEEL NZ OEL NZ OEL	TWA WES-STEL WES-TWA	10 ppm Skin 309 mg/m <sup>3</sup> 75 ppm Skin 103 mg/m <sup>3</sup> 25 ppm Skin

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

### Exposure controls

**Engineering controls:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations

### Individual protection measures

**Eye/face protection:** Use chemical goggles.

#### Skin protection

**Hand protection:** Use chemical resistant gloves classified under standard AS/NZS 2161.10: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to AS/NZS 2161.10) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to AS/NZS 2161.10) is recommended. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Other protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator.

The following should be effective types of air-purifying respirators: Organic vapour cartridge with a particulate pre-filter.

**Other Information:** Selection and use of personal protective equipment should be in accordance with the recommendations in one or more of the relevant Australian/New Zealand Standards, including:

AS/NZS 1336: Eye and Face protection - Guidelines.  
 AS/NZS 1337: Personal eye protection - Eye and face protectors for occupational applications.  
 AS/NZS 1715: Selection, use and maintenance of respiratory protective equipment.  
 AS/NZS 2161: Occupational protective gloves.  
 AS/NZS 2210: Occupational protective footwear.  
 AS/NZS 4501: Occupational protective clothing.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance - Physical state</b>	Liquid.
<b>- Colour</b>	Yellow to brown
<b>Odour</b>	Spicy.
<b>Odour Threshold</b>	No test data available
<b>pH</b>	4.58 1% ASTM E70
<b>Melting point/range</b>	Not applicable
<b>Freezing point</b>	No test data available
<b>Boiling point (760 mmHg)</b>	No test data available
<b>Flash point - closed cup</b>	> 100°C ASTM D3278
<b>Evaporation Rate (Butyl Acetate = 1)</b>	No test data available
<b>Flammability (solid, gas)</b>	Not applicable to liquids
<b>Lower explosion limit</b>	No test data available
<b>Upper explosion limit</b>	No test data available
<b>Vapour Pressure</b>	135 x 10 <sup>-3</sup> mPa at 20°C for Fluroxypyr-meptyl
<b>Relative Vapour Density (air = 1)</b>	No test data available
<b>Relative Density (water = 1)</b>	1.05 g/mL
<b>Water solubility</b>	Emulsifiable.
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Auto-ignition temperature</b>	358°C EC Method A15
<b>Decomposition temperature</b>	No test data available
<b>Dynamic Viscosity</b>	28.2 mPa.s at 40°C OECD 114
<b>Kinematic Viscosity</b>	No test data available
<b>Explosive properties</b>	No EEC A14
<b>Oxidizing properties</b>	No data available
<b>Liquid density</b>	1.05 g/cm <sup>3</sup> at 20 °C OECD 109
<b>Molecular weight</b>	Fluroxypyr 1-methylheptyl ester = 367.24
<b>Surface tension</b>	32 mN/m at 25°C EC Method A5

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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## 10. STABILITY AND REACTIVITY

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**Reactivity:** No dangerous reaction known under conditions of normal use.

**Chemical stability:** Unstable at elevated temperatures.

**Possibility of hazardous reactions:** Polymerization will not occur.

**Conditions to avoid:** Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems.

**Incompatible materials:** None known.

**Hazardous decomposition products:** Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Hydrogen chloride. Hydrogen fluoride. Nitrogen oxides. Toxic gases are released during decomposition.

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## 11. TOXICOLOGICAL INFORMATION

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### Acute toxicity

#### Acute oral toxicity

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

As product: LD50, Rat, female > 5,000 mg/kg. No deaths occurred at this concentration.

#### Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: LD50, Rat, male and female > 5,000 mg/kg. No deaths occurred at this concentration.

#### Acute inhalation toxicity

No adverse effects are anticipated from single exposure to mist. Based on the available data, respiratory irritation was not observed.

LC50, Rat, male and female, 4 Hour, dust/mist > 5.50 mg/l

### Skin corrosion/irritation

Brief contact may cause slight skin irritation with local redness. May cause drying and flaking of the skin. Prolonged contact is essentially non-irritating to skin.

### Serious eye damage/eye irritation

May cause moderate eye irritation. May cause slight corneal injury.

### Sensitization

As product: Has demonstrated the potential for contact allergy in mice.

For respiratory sensitization: No relevant data found.

### Specific Target Organ Systemic Toxicity (Single Exposure)

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

For the active ingredient: Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

For the major components: Based on available data, repeated exposures are not anticipated to cause significant adverse effects

For the minor components: In animals, effects have been reported on the following organs: Kidney.

**Carcinogenicity**

For similar active ingredient(s). Fluroxypyr-meptyl. Did not cause cancer in laboratory animals.

**Teratogenicity**

For the active ingredient: Has been toxic to the foetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

**Reproductive toxicity**

For the active ingredient(s): In animal studies, did not interfere with reproduction.

**Mutagenicity**

As product: In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

**Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

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**12. ECOLOGICAL INFORMATION**

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**Ecotoxicity**

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

**Acute toxicity to fish**

LC50, *Oncorhynchus mykiss* (rainbow trout), flow-through test, 96 Hour, 14.3 mg/l. OECD Test Guideline 203

**Acute toxicity to aquatic invertebrates**

EC50, *Daphnia magna* (Water flea), static test, 48 Hour, 20 mg/l. OECD Test Guideline 202

**Acute toxicity to algae/aquatic plants**

ErC50, *Pseudokirchneriella subcapitata* (green algae), static test, 72 Hour, Growth rate inhibition, 9.6 mg/l. OECD Test Guideline 201

ErC50, *Myriophyllum spicatum*, static test, 14 d, 0.178 mg/l. OECD Test Guideline 201

NOEC, *Myriophyllum spicatum*, static test, 14 d, 0.0152 mg/l OECD Test Guideline 201

**Toxicity to Above Ground Organisms**

Material is practically non-toxic to birds on an acute basis (LD50 > 2,000 mg/kg).

Oral LD50, *Colinus virginianus* (Bobwhite quail) > 2,250 mg/kg

**Toxicity to soil-dwelling organisms**

LC50, *Eisenia fetida* (earthworms), 14 d, survival > 1,000 mg/kg



**Persistence and degradability****Fluoroxypyr-meptyl (ISO)****Biodegradability:** Material is not readily biodegradable according to OECD/EEC guidelines.

10-day Window: Fail

**Biodegradation:** 32 %**Exposure time:** 28 d**Method:** OECD Test Guideline 301D or Equivalent**Theoretical Oxygen Demand:** 2.2 mg/mg**Stability in Water (1/2-life):** Hydrolysis, half-life, 454 d**Solvent naphtha (petroleum), heavy arom.****Biodegradability:** For similar material(s): Biodegradation may occur under aerobic conditions (in the presence of oxygen). Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.**Biodegradation:** 28d: 58.6%. OECD Test Guideline 301F.**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts****Biodegradability:** 10-day Window: Fail**Biodegradation:** 28d: 2.9 %. OECD Test Guideline 301E or Equivalent**N-methyl-2-pyrrolidone****Biodegradability:** Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

10-day Window	Biodegradation	Exposure time	Method
Pass	91 %	28 d	OECD Test Guideline 301B or Equivalent
Not applicable	73 %	28 d	OECD Test Guideline 301C or Equivalent
Not applicable	> 90 %	8 d	OECD Test Guideline 302B or Equivalent

**Theoretical Oxygen Demand:** 2.58 mg/mg**Photodegradation:** Atmospheric Half-life (indirect photolysis). Sensitizer: OH radicals: 0.486 d *Estimated.***Balance****Biodegradability:** No relevant data found.**Bioaccumulative potential****Fluoroxypyr-meptyl (ISO)****Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).**Partition coefficient: n-octanol/water (log Pow):** 5.04 *Measured***Bioconcentration factor (BCF):** 26 *Oncorhynchus mykiss* (rainbow trout). *Measured***Solvent naphtha (petroleum), heavy arom.****Bioaccumulation:** For similar material(s): Bioconcentration potential is high (BCF > 3,000 or Log Pow between 5 and 7).

**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts**

**Bioaccumulation:** Bioconcentration potential is moderate (BCF between 100 and 3,000 or Log Pow between 3 and 5).

**Partition coefficient: n-octanol/water (log Pow):** 4.6. OECD Test Guideline 107 or Equivalent

**N-methyl-2-pyrrolidone**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water (log Pow):** -0.38 *Measured*

**Balance**

**Bioaccumulation:** No relevant data found.

**Mobility in Soil**

**Fluroxypyr-meptyl (ISO)**

Expected to be relatively immobile in soil (Koc > 5,000).

**Partition coefficient (Koc):** 6,200 – 43,000

**Solvent naphtha (petroleum), heavy arom.**

No data available.

**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts**

No relevant data found.

**N-methyl-2-pyrrolidone**

Potential for mobility in soil is very high (Koc between 0 and 50).

Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

**Partition coefficient (Koc):** 21 *Estimated*.

**Balance**

No relevant data found.

**Results of PBT and vPvB assessment**

**Fluroxypyr-meptyl (ISO)**

This substance is not considered to be persistent, bioaccumulating and toxic (PBT) or very persistent and very bioaccumulating (vPvB).

**Solvent naphtha (petroleum), heavy arom.**

This substance is not considered to be persistent, bioaccumulating and toxic (PBT) or very persistent and very bioaccumulating (vPvB).

**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts**

This substance is not considered to be persistent, bioaccumulating and toxic (PBT) or very persistent and very bioaccumulating (vPvB).

**N-methyl-2-pyrrolidone**

This substance is not considered to be persistent, bioaccumulating and toxic (PBT) or very persistent and very bioaccumulating (vPvB).

**Balance**

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

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### 13. DISPOSAL CONSIDERATIONS

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**Disposal methods:** If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

Waste handling, treatment and disposal practices must be in compliance with the New Zealand Hazardous Substances (Disposal) Regulations 2001. Additional local requirements may be applicable in accordance with planning controls under the Resource Management Act. Regulations concerning waste management may vary in different locations.

This product when disposed of in its unused and uncontaminated state should be treated as a hazardous waste.

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### 14. TRANSPORT INFORMATION

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**PUBLIC PASSENGER VEHICLE TRANSPORT: To be transported ONLY in the sealed original container. Maximum volume permitted to be transported in a passenger service vehicle: 1 Litre.**

**Classification for ROAD and Rail transport:**

<b>Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Fluroxypyr)
<b>UN number</b>	UN 3082
<b>Class</b>	9
<b>Packing group</b>	III
<b>Environmental hazards</b>	Fluroxypyr

**Classification for SEA transport (IMO-IMDG):**

<b>Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Fluroxypyr)
<b>UN number</b>	UN 3082
<b>Class</b>	9
<b>Packing group</b>	III
<b>Marine pollutant</b>	Fluroxypyr
<b>Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code</b>	Consult IMO regulations before transporting ocean bulk

**Classification for AIR transport (IATA/ICAO):**

<b>Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Fluroxypyr)
<b>UN number</b>	UN 3082
<b>Class</b>	9
<b>Packing group</b>	III

**Hazchem code:** ●2X

This information is not intended to convey all specific regulatory or operational requirements/ information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Compliance with the above land, rail, marine and air requirements is deemed to comply with the applicable requirements of the Hazardous substances Identification and Emergency Management Regulations.

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## 15. REGULATORY INFORMATION

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**ACVMG APPROVAL NUMBER:** P7719

**HSNO Approval Code:** HSR007849

**ADVICE TO PRODUCT USERS REGARDING HSNO CONTROLS:** Users of this product should make reference to the New Zealand Hazardous Substances and New Organisms Act and Regulations for relevant risk management controls. Additional local requirements may be applicable in accordance with planning controls under the Resource Management Act. Refer to Environment Protection Authority publication; User Guide to the HSNO Controls Regulations. <http://www.epa.govt.nz>

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## 16. OTHER INFORMATION

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### Revision

Identification Number: 101188173/ A157 / Issue Date: 24.02.2017 / Version: Replaces 01.02.2013

DAS Code: GF-1784

Sections amended: 3, 11

### Legend

ACGIH	American Conference of Governmental Industrial Hygienists. Threshold Limit Values
Dow IHG	Dow AgroSciences Industrial Hygiene Guideline
NZ OEL	New Zealand Occupational Exposure Limits
SKIN	Absorbed via skin
STEL	Short Term Exposure Limit
TWA	8hr Time Weighted Average
US WEEL	USA. Workplace Environmental Exposure Levels
WES-STEL	Workplace Exposure Standard – Short Term Exposure Limit
WES-TWA	Workplace Exposure Standard - Time Weighted Average

DOW AGROSCIENCES (NZ) LIMITED urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the

safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDS's, we are not and cannot be responsible for (M)SDS's obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

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