



**GLOBAL AGRICHEM**  
**SAFETY DATA SHEET**

Suite 4, level 1, 38 Whitaker Place, Grafton  
Auckland, New Zealand  
Tel: +64 09 972 9837  
Fax: +64 09 353 1736  
info@globalagrlichem.co.nz

Trade name: **LANDSTAR**

Date of issue: 01 September 2015  
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**1. Identification of the Substance and Supplier.**

**Product name:** Landstar (Flumetsulam 800 WG)  
**Recommended Use:** Selective herbicide for use on various agricultural crops.  
**Company Details:** Global Agrichem Limited  
Suite 4, level 1, 38 Whitaker Place.  
Grafton, Auckland  
New Zealand  
**Web Address:** [www.globalagrlichem.co.nz](http://www.globalagrlichem.co.nz)  
**E-mail Address:** [info@globalagrlichem.co.nz](mailto:info@globalagrlichem.co.nz)  
**Telephone number:** (09) 972 9837  
**Emergency Telephone:** National Poisons and Hazardous Chemicals Information Centre  
Dunedin. Phone: 0800 POISON (0800 764-766)

**2. Hazards identification.** Classified by EPA as a hazardous substance according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.

**HSNO Hazard Classification:**

6.3B: Harmful - may cause skin irritation.  
9.1A: Very Toxic to aquatic organisms  
9.2A: Very Toxic to the soil environment

**Precautions:** Keep out of reach of children.  
Avoid skin and eye contact. Wear protective clothing  
Avoid contamination of any water supply with product or empty containers

**3. Composition/Information on Ingredients**

Ingredient	CAS Number	Content (% w/w)
Flumetsulam 98%	98697-40-9	81.6
Tersperse 2700	Proprietary	5.0
Terwet 1004	Proprietary	4.5
Other non- hazardous ingredients		To 100%



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#### 4. First aid measures

- First Aid:** For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately.
- Inhalation:** Remove patient to fresh air. Lie patient down and keep warm and rested. Seek medical advice if feeling unwell.
- Ingestion:** Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting. Seek medical advice immediately.
- Skin Contact:** Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. If a large area is affected, seek medical advice.
- Eye Contact:** Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical advice.
- First Aid Facilities:** A facility storing or utilising this product should be equipped with an eyewash facility and safety shower.
- Advice to Doctor:** Treat symptomatically. No specific antidote.
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#### 5. Fire-fighting measures

- Fire/Explosion hazard:** Non-flammable
- Suitable extinguishing media:** Water spray, dry chemical or carbon dioxide.
- Hazards from combustion:** In a fire, oxides of nitrogen, oxides of sulphur and halogen derivatives may be emitted. These substances may be toxic or irritating.
- Special protective equipment for fire fighters:** Wear full protective clothing and self-contained breathing apparatus.
- Special fire-fighting methods:** Keep upwind. Do not allow run-off from firefighting to enter sewage, effluent systems, drains or water courses.
- Hazchem Code:** 2X
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#### 6. Accidental release measures

- Spills and Disposal:** Exclude non-essential people from the area. Wear suitable protective clothing. Contain the spill and sweep up solids without generating dust (use water to dampen). Contain and absorb liquid spills with absorbent material (e.g. sand, soil or absorbent granules) and place in waste containers.



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If spill does enter waterways, contact the local authority.  
Collect the absorbed spill in an appropriate sealable container for disposal in an approved landfill. Decontaminate the spill area with detergent and water. Absorb with inert material and dispose of waste safely in an approved landfill.

**Personal Protection:** Ensure suitable personal protection (PPE). Wear eye protection, chemically resistant gloves boots and overalls.

**Environmental precautions:** Prevent washings from entering surface water drains or waterways. This product is a herbicide, spills can damage crops, pastures and desirable plants. Prevent contamination of soil and water

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## 7. Handling and storage

### Precautions for safe handling:

Avoid skin and eye contact and inhalation of spray mist  
Approved handler: This product must be under the control of an approved handler if applied in a wide dispersive manner or used by a commercial contractor.  
Record keeping: Records of use must be kept if 3kg or more is applied within 24 hours.  
Beware: This product is a spray drift hazard and should be applied carefully. Spray drift may cause serious damage to other desirable plants.  
When using, do not eat, drink or smoke.  
Wash face and hands before eating, drinking or smoking

### Conditions for Safe Storage:

Keep out of reach of children.  
Store in the original container tightly closed in a locked dry cool area away from Foodstuffs, seeds, feed and fertiliser.  
Storage must be in accordance with the current version of NZS 8409 Management of Agrichemicals.  
Stores containing 100 kg of Landstar are subject to signage. More than 100 kg requires emergency response plans.

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## 8. Exposure controls/personal protection

**Occupational exposure limit values:** No EELs, TELs or WES have been set for this product.

**Engineering controls:** No special requirements. Product is used outdoors. Handle in well ventilated areas. Generally, natural ventilation is adequate.

**Personal Protective Equipment:** When opening the container, preparing the spray or applying the product, wear safety goggles, chemically resistant gloves and cotton overalls (worn outside rubber boots).

**Hygiene Measures:** Do not eat, drink or smoke while using this product.  
Remove protective clothing and wash hands and face thoroughly before meals and



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after work.  
Wash protective clothing daily after work.  
Wash splashes of concentrate from the skin immediately

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### 9. Physical and chemical properties

**Appearance:** Solid - granule  
**Colour:** Beige  
**Odour:** Characteristic odour  
**Flash Point:** Not flammable  
**pH:** 5.0 – 8.0  
**Water solubility:** Dispersible

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### 10. Stability and reactivity

**Chemical Stability:** Stable under normal conditions of handling and storage.

**Conditions to avoid:** Extremes of temperature.

**Possibility of hazardous reactions:** In a fire, oxides of nitrogen, oxides of sulphur and halogen derivatives may be emitted.

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### 11. Toxicological information

**Acute Toxicity:** Toxicology data has not been determined specifically for this product formulation. Data given below is for the active ingredient flumetsulam.  
Acute oral LD<sub>50</sub> (rat): > 5000 mg/kg  
Acute percutaneous LD<sub>50</sub> (rabbits): > 2000 mg/kg

**Ingestion:** Not classified as an acute toxicant.

**Inhalation:** Inhalation LC<sub>50</sub> (4 h) for rats: 1.2 mg/litre

**Sensitisation:** Non sensitising to skin (guinea pig).

**Eye:** Slightly irritating to eyes (rabbits)

**Skin:** Skin irritant (6.3B)

**Carcinogenicity:** Not known to be carcinogenic.

**Mutagenicity:** Not mutagenic.

**Teratogenicity:** Not teratogenic.

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### 12. Ecological Information

**Ecotoxicity:** Very toxic to aquatic life with long lasting effects (9.1A). Avoid contamination of any water supply with product or empty container.  
Ecotoxicological data has not been determined specifically for this formulated product. Data given below is for the active ingredient flumetsulam.

**Environmental Fate:** Not bioaccumulative.  
Availability of flumetsulam in soil principally dependent on soil pH and organic matter:  
Soil DT<sub>50</sub> (25°C pH ≥ 7, organic matter <4%): ≤ 1 month.  
Soil DT<sub>50</sub> (25°C pH 6-7, organic matter 1%): ≤ 1 month.  
Soil DT<sub>50</sub> (25°C pH 6-7, organic matter 2-4%): 1-2 months.

**Acute Toxicity to Fish:** The formulated product is an aquatic ecotoxicant (9.1A)  
Silverside minnow LC<sub>50</sub> (96 hour): > 379 mg/litre  
Bluegill sunfish: Non-toxic  
Fathead minnow: Non-toxic

**Acute Toxicity Aquatic Organisms:**

Shrimps LC<sub>50</sub>: > 349 mg/litre  
Green algae *Selenastrum capricornatum* EC<sub>50</sub>(5 d): 4.9 µg/litre  
Blue green algae *Anabaena flos-aquae* EC<sub>50</sub>(5 d): 167 µg/litre

**Acute Toxicity Vertebrates (Birds):**

Acute oral LD<sub>50</sub> bobwhite quail: > 2250 mg/kg  
Dietary LC<sub>50</sub> (8 d) for bobwhite quail and mallard ducks: > 5620 mg/litre

**Acute Toxicity to soil organisms (Worms):** The formulated product is a soil ecotoxicant (9.2A)  
LC<sub>50</sub> (14 d): > 950 mg/kg soil

**Acute Toxicity to Terrestrial Invertebrates:**

Honey bee LC<sub>50</sub>: > 100 µg/bee

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### 13. Disposal considerations

**Product disposal:** Dispose of this product only by using according to the label or at an approved landfill or other approved facility.

**Container disposal:** Triple rinse the empty container adding the rinsate to the spray tank.  
Recycle if possible, otherwise crush and bury in an approved local authority facility.  
Avoid contamination of any water supply with product or empty container.  
Do not use container for any other purpose.

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#### 14. Transport regulations

**Dangerous Goods:** Classified as dangerous goods for transport (9.1A)

**Rail /Road /Sea:** UN Number: 3077  
Class: 9  
Packaging Group: III  
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
SOLID, N.O.S. (Flumetsulam 80%)  
Hazchem: 2X  
Segregation: Refer to the latest Land Transport Dangerous Goods Rule 45001  
Sea transport may require additional segregation (Refer to NZS5433)

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#### 15. Regulatory information

HSNO Approval Number: HSR101014  
HSNO Controls: Refer to [www.epa.govt.nz](http://www.epa.govt.nz) .  
ACVM Approval: Registered pursuant to the ACVM Act 1997 No: P9188  
ACVM Registration conditions: See: [www.foodsafety.govt.nz](http://www.foodsafety.govt.nz)

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#### 16. Other information

**Abbreviations:** ACVM: Agricultural Chemicals and Veterinary Medicines Group.  
CAS Number: Chemical Abstracts Service Number  
DT<sub>50</sub>: Time for 50% loss (half-life)  
EC<sub>50</sub>: Median effective concentration  
EEL: Environmental Exposure Limit  
EPA: Environmental Protection Authority of New Zealand  
HSNO: Hazardous Substances and New Organisms ACT 1966  
LD<sub>50</sub>: Lethal Dose 50% (Population)  
LC<sub>50</sub>: Lethal Concentration 50% (Population)  
TEL: Tolerable Exposure Limit  
WES: Workplace Exposure Standard

**General:** Landstar is a selective herbicide for the control of broadleaf weeds in new and established pasture, chicory, clover, lucerne and maize. Use only as directed on the label.

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*This SDS supersedes all previous issues. It summarises our best knowledge of the health and safety hazard information of the product. All users should read this SDS and consider the information in the context of how the product will be handled and used in the workplace, including in conjunction with other products. Since the actual use of this product is beyond the control of Global Agrichem Ltd, we make no warranty, expressed or implied, concerning the use of this product. It is the responsibility of users to ascertain that the product is suitable for intended applications.*

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