


Glyphosate 680 Dry

Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

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| Product Name: | Glyphosate 680 Dry |
| Product Code: | N/A |
| Recommended Use: | Non-selective, non-residual, contact herbicide for the control of grass and broadleaf weeds. |
| Restrictions of Use: | Refer to Section 15 |
| Company Identification: | Ravensdown Limited |
| Address: | 292 Main South Road, Hornby, Christchurch, 8042 PO Box 1049, Christchurch 8011 |
| Customer Centre: | 0800 100 123 |
| National Poisons Information Centre: | 0800 POISON (0800 764 766) |
| Emergency Phone Number: | 0800 CHEMCALL (0800 243 622) (24hr) (Emergencies Only) |
| Transport Emergency Phone Number: | 111 - tell operator what service is needed: Fire, Ambulance or Police |
| Date of SDS Preparation | 12 October 2020 |

Section 2: HAZARD IDENTIFICATION

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

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| EPA Approval No: | HSR007661 |
| Pictograms: |  |
| Signal Word: | Warning |

| HSNO Classification | Hazard Code | Hazard Statement | GHS Category |
|---------------------|-------------|--------------------------------------------------|-------------------|
| 6.1E (oral) | H303 | May be harmful if swallowed. | Acute Tox. 5 |
| 9.1B | H411 | Toxic to aquatic life with long lasting effects. | Aquatic Chronic 2 |

| Prevention Code | Prevention Statement |
|-----------------|-----------------------------------|
| P102 | Keep out of reach of children. |
| P103 | Read label before use. |
| P273 | Avoid release to the environment. |

| Response Code | Response Statement |
|---------------|-----------------------------------------------------------------------|
| P101 | If medical advice is needed, have product container or label at hand. |
| P312 | Call a POISON CENTER or doctor/physician if you feel unwell. |
| P391 | Collect spillage. |

| Storage Code | Storage Statement |
|----------------|-------------------|
| None allocated | |

| Disposal Code | Disposal Statement |
|---------------|----------------------------------------------------------|
| P501 | Dispose of according to Local Regulations or Authorities |

Section 3: COMPOSITION INFORMATION

| Ingredient | Cas No. | Content %W/W |
|----------------------------------------------|-------------|--------------|
| Glyphosate present as the mono-ammonium salt | 1071-83-6 | 68.8 |
| Ammonium hydroxide | 1336-21-6 | 3.0-10.0 |
| Ammonium sulphate | 7783-20-2 | 10.0-20.0 |
| Other Components | Proprietary | Balance |

Section 4: FIRST AID MEASURES

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| Routes of Exposure: | |
| If in eyes: | Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention. |
| If on skin: | Remove contaminated clothing and wash affected area thoroughly with soap and water. If a large area is affected or rash occurs seek medical assistance. |
| If ingested: | Never give anything by mouth to an unconscious person. If swallowed DO NOT induce vomiting. For advice, contact the National Poisons Centre on 0800 POISON (0800 764 766). Seek medical assistance immediately. |
| If inhaled: | Remove patient to fresh air. Lay down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately. |
| Most important symptoms and effects, both acute and delayed | |
| Symptoms: | |
| Eyes: | Not applicable. |
| Skin: | Not applicable. |
| Ingested: | May cause mild gastrointestinal discomfort if ingested in small quantities. Larger quantities may cause gastrointestinal corrosive effects, with mouth, throat and epigastric pain and dysphagia. |
| Inhaled: | Not applicable. |
| Chronic: | Not applicable. |
| Notes to Doctor: | Treat symptomatically. |

Section 5: FIRE FIGHTING MEASURES

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| Hazard Type | Non Flammable |
| Hazards from combustion products | This product or solutions of this product react with galvanised steel or unlined steel containers and tanks, to produce hydrogen gas which may form a highly flammable or explosive gas mixture. |
| Suitable Extinguishing media | Dry chemical, water spray or carbon dioxide. Do not allow contaminated runoff to enter drains. |
| Precautions for firefighters and special protective clothing | Full protective clothing and self-contained breathing apparatus. Smoke may be toxic. |
| HAZCHEM CODE | 22 |

Section 6: ACCIDENTIAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Wear appropriate protective clothing as detailed in Section 8. Exclude non-essential people from the area.

Environmental precautions:

Prevent from entering drains, waterways or sewers. If spill does enter waterways contact local authority.

Methods and material for containment and cleaning up:

Sweep granule concentrates into a pile and recover into labelled containers for disposal. Decontaminate the spill area with detergent and water and rinse with the smallest volume of water possible. Launder protective clothing before re-use. Dispose of according to Section 13.

Section 7: HANDLING AND STORAGE

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| Handling: | Read label before use. Avoid contact with skin, eyes and inhalation of spray mist. Avoid release to the environment. Wear protective clothing as detailed in Section 8. |
| Storage: | Keep out of reach of children. Store away from incompatible materials listed in Section 10. Store in original container tightly closed, well ventilated and in a locked, dry, cool area away from foodstuffs, fertiliser and seed. Do not mix, use or store in galvanized or unlined steel containers. Store in accordance with NZS 8409 Management of Agrichemicals This product is subject to signage and secondary containment when stored in quantities of 1000kg or more, either alone or in aggregate with substances of the same hazard classification. More than 1000kg require emergency response plans. For full details refer to NZS 8409 Management of Agrichemicals and HSNO Regulations (Emergency Management and Identification Regulations). |


Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

| Substance | TWA ppm mg/m ³ | STEL ppm mg/m ³ |
|-----------|------------------------------|-------------------------------|
|-----------|------------------------------|-------------------------------|

No ingredients have exposure limits

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2019 11TH EDITION.

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| Engineering Controls: | Handle in well-ventilated area. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits. Avoid inhalation of spray mist. |
| Personal Protection Equipment: | |
|  | |
| Eyes: | When opening the container, preparing spray and when contact with concentrate or solution is likely, wear safety goggles. |
| Skin/Hands: | When opening the container, preparing spray and when contact with concentrate or solution is likely, wear waterproof gloves, cotton overalls buttoned to the neck and wrist, and boots. |
| Respiratory: | Handle in well ventilated area. |
| General: | Do not eat, drink or smoke while using this product. Remove protective clothing and wash hands and face before meals and after work. Wash protective clothing daily after work. |

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

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|-----------------------------------------|-----------------------------|
| Appearance | Granule |
| Colour | Pale yellow |
| Odour | Not available |
| Odour Threshold | Not available |
| pH | 3.0 – 6.0 |
| Boiling Point | Not available |
| Melting Point | Not available |
| Freezing Point | Not available |
| Flash Point | Not available |
| Flammability | Non Flammable |
| Upper and Lower Explosive Limits | Not available |
| Vapour Pressure | Not available |
| Vapour Density | Not available |
| Specific Gravity | Not available |
| Water Solubility | Completely soluble in water |
| Partition Coefficient: | Not available |
| Auto-ignition Temperature | Not available |
| Decomposition Temperature | Not available |
| Kinematic Viscosity | Not available |
| Particle Characteristics | Not available |
| Other information | Water Soluble Granule (WSG) |

Section 10: STABILITY AND REACTIVITY

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| Stability of Substance | When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture. |
| Possibility of hazardous reactions | Not available |
| Conditions to Avoid | Avoid storing in direct sunlight or temperatures below 5°C or above 35°C. |
| Incompatible Materials | Corrosive to mild steel, galvanized steel and zinc. Non-corrosive to stainless steel, polyethylene and plastics. Do not mix, store or apply the product or spray solutions in galvanized or unlined steel containers or spray tanks. Avoid contact with strong acids, alkalis and oxidizing agents. |

Section 11: TOXICOLOGICAL INFORMATION

Acute Effects:

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| Swallowed | May be harmful if swallowed. LD ₅₀ (rat) LD ₅₀ (rat) >5000mg/kg for glyphosate Amounts swallowed incidental to normal handling are unlikely to cause injury. Large amounts swallowed may cause injury. Symptoms include nausea, vomiting, gastrointestinal discomfort, diarrhoea, hypotension and pulmonary oedema. |
| Dermal | Not applicable. LD ₅₀ (rabbit) >5000mg/kg for glyphosate. |
| Inhalation | LC ₅₀ (rat) (4hr) >4.98mg/L for glyphosate No adverse effects are to be expected. When applying this product avoid inhalation of spray mist. Some temporary irritation may be experienced. |
| Eye | May be mild eye irritant. Symptoms may include redness and irritation. Prolonged contact may cause damage. |
| Skin | Not applicable. |

Chronic Effects:

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|-------------------------------|-----------------|
| Carcinogenicity | Not applicable. |
| Reproductive Toxicity | Not applicable. |
| Germ Cell Mutagenicity | Not applicable. |
| Aspiration | Not applicable. |
| STOT/SE | Not applicable. |
| STOT/RE | Not applicable. |

Section 12: ECOLOGICAL INFORMATION

HSNO Classes: 9.1B = Toxic to aquatic life.

Product:

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| Persistence and degradability/Mobility | Low mobility in soil. Glyphosate is strongly adsorbed by the soil. Microbial degradation is the major cause of loss from the soil. Half life average 41 days (16-77 days) |
| Bioaccumulation | Glyphosate does not bioaccumulate. |
| Other adverse effects | Avoid unintended release into streams and waterways. |

Ecotoxicity:

Acute Toxicity (fish) (glyphosate)

LC₅₀ (trout) (96hr) 86mg/L

LC₅₀ (bluegill sunfish) (96hr) 120mg/L

Acute Toxicity (daphnia) (glyphosate)

LC₅₀ (48hr) 780mg/L

Toxic to fish and other aquatic organisms

Acute toxicity to birds (glyphosate)

LD₅₀ (bobtail quail) 3851mg/kg

Not toxic to birds

Acute toxicity (bees) (glyphosate)

LD₅₀ >100µg/bee (contact) 100µg/bee (oral)

Not toxic to bees

Section 13: DISPOSAL INFORMATION

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| Disposal Method: | Triple rinse container and add rinsate to spray tank. |
| Container Disposal: | Triple rinse container and add rinsate to spray tank. Triple rinsed containers containing the Agrecovery logo on the label and that are free of all residues and have an intact legible label may be taken to an Agrecovery collection site for disposal. Otherwise crush and bury in an approved landfill. Do not burn. Do not use container for any other purpose. |
| Precautions or methods to avoid: | Do not allow to enter waterways. |

Section 14: TRANSPORT INFORMATION

This product is classified as a Dangerous Good for transport in NZ; NZS 5433:2012



Road, Rail, Sea and Air Transport

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|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UN No | 3077 |
| Class - Primary | 9 |
| Packing Group | III |
| Proper Shipping Name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (glyphosate 68%) |
| Marine Pollutant | Yes |
| Special Provisions | If the product's individual container is below 5kg, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG. |

Section 15: REGULATORY INFORMATION

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

EPA Approval Code: HSR007661

HSNO Classification: 6.1E(oral), 9.1B

| HSW (HS) Regulations 2017 | Trigger Quantity |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Signage Trigger Quantities (Schedule 3) | 1000L(9.1B) |
| Emergency Response Plan (Schedule 5) | 1000L(9.1B) |
| Secondary Containment (Schedule 5) | 1000L(9.1B) |
| Tracking (Schedule 26) | Not required |
| Certified Handlers | Not required |
| HSNO Additional Controls (Restrictions of use) | |
| s77A | Do not apply into or onto water. |
| Hazardous Property Controls Notice 2017 | |
| HPC Notice Part 4 Clause 47 | Equipment for class 9 substances must be appropriate |
| HPC Notice Part 4 Subpart A | Site and storage controls for class 9 substances |
| HPC Notice Part 4 Subpart C | Qualification required for application class 9 pesticides |
| HPC Notice Part 3 | Hazardous substances in a place other than a workplace |
| ACVM Act and Regulations | |
| See www.foodsafety.govt.nz for registration conditions | P9550 |

Section 16: OTHER INFORMATION

Glossary

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| EC ₅₀ | Median effective concentration. |
| EEL | Environmental Exposure Limit. |
| EPA | Environmental Protection Authority |
| HSNO | Hazardous Substances and New Organisms. |
| HSW | Health and Safety at Work. |
| LC ₅₀ | Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it. |
| LD ₅₀ | Lethal dose to kill 50% of test animals/organisms. |
| LEL | Lower explosive level. |
| OSHA | American Occupational Safety and Health Administration. |
| TEL | Tolerable Exposure Limit. |
| TLV | Threshold Limit Value-an exposure limit set by responsible authority. |
| UEL | Upper Explosive Level |
| WES | Workplace Exposure Limit |

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact Ravensdown, if further information is required.

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