

# SAFETY DATA SHEET



Dow AgroSciences

## VERSATILL™ POWERFLO

Emergency Phone: 0800 844 455

+ 64 6 751 2407

Dow AgroSciences (N Z) Ltd.

89 Paritutu Road, New Plymouth

Effective Date: 28.11.2013

Product Code: 101191388

### 1. PRODUCT AND COMPANY IDENTIFICATION:

**PRODUCT:** Versatill™ PowerFlo

**PURPOSE:** Herbicide

#### COMPANY IDENTIFICATION:

Dow AgroSciences (NZ) Ltd.

Registration Number: 169964

89 Paritutu Road, New Plymouth

#### Customer Service Toll Free Number:

0800 803 939

(Mon-Fri, 8am–4.30 pm)

[fnpcust@dow.com](mailto:fnpcust@dow.com)

#### Emergency Telephone Numbers:

**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

### 2. HAZARDOUS IDENTIFICATIONS:

#### EMERGENCY OVERVIEW

**HSNO Hazard Classification:** 9.1C, 9.2A, 9.3C.

#### HAZARD:

Harmful to aquatic life with long lasting effects

Very toxic to soil environment

Harmful to terrestrial vertebrates

#### RESPONSE:

Collect spillage

### 3. COMPOSITION/INFORMATION ON INGREDIENTS:

Ingredient	CAS #	Content
Clopyralid	1096483-38-3	~60%
Dimethylammonium Salt:		
Balance not contributing to the hazard		~40%

### 4. FIRST AID:

**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.**

**EYE:** Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.

**SKIN:** Wash skin thoroughly with soap and water. Remove contaminated clothing and shoes while washing. Wash clothing before reuse.

**INGESTION:** Call a physician or the Poisons Information Centre immediately. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not give anything by mouth to an unconscious person.

**INHALATION:** Move person to fresh air if effects occur. Consult a physician.

**NOTE TO PHYSICIAN:** No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

### 5. FIRE FIGHTING MEASURES:

**HAZCHEM:** 2X

**FLASH POINT:** > 100 °C

**COMBUSTIBLE:** Not combustible

#### FLAMMABLE LIMITS

LFL: Not applicable

UFL: Not applicable

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**EXTINGUISHING MEDIA:** Water fog, foam, alcohol foam, CO<sub>2</sub>, dry chemical.

**FIRE AND EXPLOSION HAZARDS:** Noxious fumes under fire conditions. Contain water from fire fighting to prevent entry to surface and ground water.

**FIRE-FIGHTING EQUIPMENT:** Wear positive-pressure self-contained breathing apparatus and full-protective clothing.

### 6. ACCIDENTAL RELEASE MEASURES:

**ACTION TO TAKE FOR SPILLS/LEAKS:** DO NOT touch or walk through spilled material. Wear a face shield or goggles, overalls buttoned to neck and wrist, chemical resistant gloves and boots. Stop leak when safe to do so. Dike area and prevent entry into waterways, and drains.

**Small spills/leaks:** Absorb with material with a proprietary absorbent suitable for chemical spills or inert materials such as sand or earth. Collect spilled product and place in sealable container for disposal. Spill residues may be cleaned using water and detergent. Contain and absorb wash water for disposal. Absorb and collect washings and place in the same sealable container for disposal. Dike the area of large spills and report them to Dow AgroSciences at 0800 844 455.

### 7. HANDLING AND STORAGE:

#### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

**HANDLING:** Keep out of reach of children. Causes eye and skin irritation. Avoid contact with eyes, skin and clothing. After work, remove protective clothing and equipment, wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Clean up spilled material immediately, and wash clothes, equipment and work area after use.

**STORAGE:** Store in tightly closed original container in a cool, dry well-ventilated area out of direct sunlight when not in use. This product can be stored in an unheated building. Do not store with food, feedstuffs, fertilizers and seeds. See product label for further handling/storage precautions relative to the end use of this product.

This substance is subject to a requirement for an emergency management plan, secondary containment and signage, whenever it is held in quantities of 1,000 liters or more, either alone or in aggregate with other hazardous substances. See Hazardous substances (Emergency Management) Regulations 25 to 42.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions

#### EXPOSURE GUIDELINES:

Clopyralid acid: Dow AgroSciences Industrial Hygiene Guide is 10 mg/m<sup>3</sup> (skin).

A "skin" notation following the exposure guideline refers to the potential for dermal absorption of the material. It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposures should be considered.

**ENGINEERING CONTROLS:** Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

#### RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

**EYE/FACE PROTECTION:** Use safety glasses.

**SKIN PROTECTION:** Use protective clothing chemically resistant to this material. Selection of specific items, such as faceshield, gloves, boots, apron, or full body suit will depend on the operation. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly.

**RESPIRATORY PROTECTION:** Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator for organic vapours.

**APPLICATORS AND ALL OTHER HANDLERS:** Refer to the product label for personal protective clothing and equipment.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES:

**APPEARANCE:** Blue - Green liquid

**ODOUR:** None

**pH:** 3.9 (1% aqueous dilution)

**BOILING POINT:** 100 – 105°C

**VAPOUR PRESSURE:**  $1.2 \times 10^{-5}$  mmHg @ 25°C  
(clopyralid acid)

**SPECIFIC GRAVITY:** 1.229 @ 20°C

**SOLUBILITY IN WATER:** Soluble

### 10. STABILITY AND REACTIVITY:

**STABILITY:** Stable under normal storage conditions. Not flammable.

**INCOMPATIBILITY:** (specific materials to avoid) Acids, bases, oxidizing materials.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Noxious fumes under fire conditions - hydrogen chloride and others.

**HAZARDOUS POLYMERIZATION:** Not known to occur.

### 11. TOXICOLOGICAL INFORMATION:

**POTENTIAL HEALTH EFFECTS:** This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

**EYE:** May cause slight temporary eye irritation. Corneal injury is unlikely.

**SKIN:** Prolonged skin contact is unlikely to result in absorption of harmful amounts. The LD<sub>50</sub> for skin absorption in rabbits is >2000 mg/kg. Tests on laboratory animals showed no evidence of irritation or sensitivity.

**INGESTION:** Low toxicity if swallowed. The oral LD<sub>50</sub> for rats is >2,000 mg/kg. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

**INHALATION:** No adverse effects are anticipated from single exposure to vapour or mist. The inhalation LC<sub>50</sub> for rats is >5,120 mg/m<sup>3</sup> for 4 hours. Prolonged exposure may irritate the eyes, nose and throat.

**SYSTEMIC (OTHER TARGET ORGAN) EFFECTS:** For a similar material, clopyralid acid, in animals, effects have been reported on the following organs: heart, kidney, and liver.

**CANCER INFORMATION:** A similar material, clopyralid acid, did not cause cancer in laboratory animals.

**TERATOLOGY (BIRTH DEFECTS):** A similar material, clopyralid acid, caused birth defects in test animals, but only at greatly exaggerated doses that were severely toxic to the mothers. No birth defects were observed in animals given clopyralid at doses several times greater than those expected during normal exposure.

**REPRODUCTIVE EFFECTS:** For a similar material clopyralid acid, in laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent.

**MUTAGENICITY:** For a similar material, clopyralid acid, in vitro and animal genetic toxicity studies were negative.

### 12. ECOLOGICAL INFORMATION:

#### ENVIRONMENTAL FATE:

Based largely or completely on information for clopyralid acid.

#### MOVEMENT & PARTITIONING:

Clopyralid is weakly sorbed (Mean K<sub>oc</sub> ~5 mL/g) indicating potential for mobility

#### DEGRADATION & PERSISTENCE:

Clopyralid is hydrolytically stable and photochemical degradation is slow (half-life 19.5 days). Clopyralid is not readily biodegradable under the conditions of the EU Ready Biodegradability test EEC method C5, OECD No. 301B). Clopyralid rapidly degrades to Co<sub>2</sub> in the soil (field half-life 2- 24 days). Degradation is retarded under cold conditions or very dry soils. Clopyralid slowly degrades in water/sediment systems (half-life 143 – 182 days).

#### ECOTOXICOLOGY:

Based largely or completely on information for clopyralid acid.

Material is toxic to aquatic organisms on an acute basis (LC<sub>50</sub> or EC<sub>50</sub> is 6.9 mg/L in most sensitive species - algae).

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Material is slightly toxic to birds on an acute basis ( $LD_{50}$  is 1,465 mg/kg).

Material is practically non-toxic to birds on a dietary basis ( $LC_{50}$  is >5,000 mg/kg).

### VERSION TRACKING

Replaces version dated: 19.08.2013

Sections amended: 1,16

Product code: GF-2551

### Legend

N/A	Not available
W/W	Weight/Weight
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.
DOW IHG	Dow Industrial Hygiene Guideline
WEEL	Workplace Environmental Exposure Level
HAZ_DES	Hazard Designation

### 13. DISPOSAL CONSIDERATIONS:

**DISPOSAL METHOD:** 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 regulations. 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 and regulations.

### 14. TRANSPORT INFORMATION:

**PUBLIC PASSENGER VEHICLE TRANSPORT:** No restriction.

**ROAD & RAIL**  
Not regulated

**IMDG**  
Not regulated

**ICAO/IATA**  
Not regulated

### 15. REGULATORY INFORMATION:

**ACVMG APPROVAL NUMBER:** P008801  
**NZ EPA New Zealand Approval Code:** HSR100844

### 16. OTHER INFORMATION:

#### References

AS/NZS 1715-1994 Selection Use and Maintenance of Respiratory Protective Devices.

ASNZS 1716 - 1994 Respiratory protective devices.

AS/NZS 2161.10 - 2005 Occupational protective gloves - Part 10.1: Protective gloves against chemicals and micro-organisms.

International Maritime Dangerous Goods Code.

International Air Transport Association (IATA) Dangerous Goods Regulation

### FOR FURTHER PRODUCT INFORMATION CALL DOW AGROSCIENCES CUSTOMER SERVICE REPRESENTATIVES TOLL FREE 0800 803 939 DURING BUSINESS HOURS.

*Dow AgroSciences (NZ) Ltd 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)SDSs, we are not and cannot be responsible for (M)SDSs 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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