1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY:

PRODUCT NAME: ORACLE
MANUFACTURER: Agrisource 2000 Ltd
SUPPLIER NAME: Lonza NZ Ltd
SUPPLIER ADDRESS: 13-15 Hudson Rd, Bell Block, New Plymouth, New Zealand
SUPPLIER PHONE: +64 6 7559234
SUPPLIER FAX: +64 6 7551174
EMERGENCY PHONE: 0800 243 622, 0800 CHEMCALL
INTERNATIONAL EMERGENCY PHONE: +64 4 917 9888
CHEMICAL FAMILY: Pyridazinone
USE: Herbicide

2. HAZARDS IDENTIFICATION:

6.3B: Harmful - may cause skin irritation. Avoid contact with skin.
6.4A: Harmful - may cause eye irritation. Avoid contact with eyes.
6.5B: Harmful - may cause skin sensitization from prolonged skin contact. Avoid skin contact.
6.7B: Harmful - suspected of causing cancer
6.8B: Harmful - may cause reproductive/development damage from repeated oral exposure.
6.9B: Harmful - may cause organ damage from repeated oral exposure at high doses.
9.1A: Very Toxic to fish/aquatic organisms with long lasting effects.
9.2A: Very toxic to the soil environment [Selective herbicide].

Refer to Section 15 for NZ EPA Requirements.

3. COMPOSITION / INFORMATION ON INGREDIENTS:

COMMON NAME: Oxadiazon
CAS NUMBER: 19666-30-9
CONCENTRATION %: < 40
HAZARD CLASSIFICATIONS: Surfactants (proprietary)

4. FIRST - AID MEASURES:

EYE CONTACT: Immediately flush with flowing water for at least 15 minutes. Seek medical attention if irritation occurs or persists.
SKIN CONTACT: Immediately flush with plenty of water while removing contaminated clothing. DO NOT scrub the skin. Continue for at least 15 minutes. Wash clothing before reuse.
INHALATION: If ill-effects occur, move to fresh air. If effects persist, consult a doctor.
INGESTION: If swallowed, rinse mouth with water immediately. DO NOT induce vomiting. Seek medical attention.
NOTES TO DOCTOR: No specific antidote. Treat symptomatically.

5. FIRE FIGHTING MEASURES:

FLASHPOINT: Not applicable.
FLAMMABLE LIMITS: Not applicable.
EXTINGUISHING MEDIA: Water spray (fog), foam, dry chemical or carbon dioxide.
THERMAL DECOMPOSITION PRODUCTS: Oxides of carbon and nitrogen
SPECIAL FIRE FIGHTING METHODS: Vapours may be toxic. Self contained breathing apparatus required. Do not allow contaminated run-off to enter drains.
HAZCHEM CODE: 2X
UNUSUAL FIRE OR EXPLOSION HAZARDS: None.

6. ACCIDENTAL RELEASE MEASURES:

Spills may be slippery and should be cleaned up immediately. Clear area of unnecessary personnel. Use appropriate protective equipment.
Large spill: Dike and pump as much as possible to a salvage container. Absorb the remaining liquid and any small spills with clay granules, sand or other absorbent material and sweep to a waste container. Cover the spill area with water and absorb. Minimise runoff into waterways or drains.

7. HANDLING AND STORAGE:

Harmful - Keep out of reach of children.
Store in original container in a cool, well ventilated place, away from direct sunlight and extreme heat.
Keep container, tightly closed away from food, food related materials, animal feedstuffs, seed or fertilizer.
Wear personal protective equipment appropriate to the situation when handling product. Wash protective clothing daily after work.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION:

EXPOSURE LIMITS: No exposure limits (TEL, or EELs) have been specifically assigned for this product.
EYE PROTECTION: Avoid contact with eyes. Wear a face shield or full chemical workers goggles when there is a risk of a splash.
RESPIRATORY PROTECTION: Not normally required. Exceptions: during the formation of mists or aerosols or in the case of fire.
PROTECTIVE CLOTHING: Avoid skin contact. Wear protective clothing such as impervious gloves, waterproof hat, coat and trousers (worn outside rubber boots) when using. Wash protective clothing daily after work.
VENTILATION: General (mechanical) room ventilation is considered satisfactory.
HYGIENE PRECAUTIONS: Do not eat drink or smoke while working with this product. Remove clothing that becomes soaked or contaminated and wash before reuse. Wash hands before breaks and after work. The use of a skin barrier cream is useful to give additional skin protection.
9. PHYSICAL AND CHEMICAL PROPERTIES:

**APPEARANCE / STATE / ODOUR:** Tan Liquid

**BOILING POINT:** Not available.

**DENSITY:** 1.12

**DECOMPOSITION TEMP:** Not available.

**FLASHPOINT:** Not applicable.

**EXPLOSION PROPERTIES:** Not available.

**SOLUBILITY:** Dispersible in water.

**OTHER DATA:**

**OCTANOL / WATER PARTITION COEFFICIENT:** Not available.

**VAPOUR DENSITY:** Not applicable.

10. STABILITY AND REACTIVITY:

**CONDITIONS TO AVOID:** Product is stable under normal temperatures and pressures.

**MATERIALS TO AVOID:** None

**HAZARDOUS DECOMPOSITION:** Oxides of carbon and nitrogen

11. TOXICOLOGICAL INFORMATION:

**ACUTE ORAL:**
- LD50 Rats: >5000 mg/kg [Oxadiazon tech]
- LD50 Rats: >2000 mg/kg [Oxadiazon tech]

**ACUTE DERMAL:**
- LD50 Rats: >2.77 mg/L [Oxadiazon tech]

**ACUTE INHALATION:**
- Harmful - may cause skin and eye irritation. Avoid contact with skin or eyes. May cause skin sensitization from prolonged skin contact. Avoid skin contact. Suspected of causing cancer. May cause reproductive/development damage from repeated oral exposure and may cause organ damage from repeated oral exposure at high doses.
- In mammals following oral administration, 93% is eliminated within 72 hours, predominantly in the urine.

**OTHER TOXICITY INFORMATION:**

**Aquatic Toxicity:** LC50 (96h) rainbow trout: 1.2 mg/L [Oxadiazon tech]

**Soil Toxicity:** Soil DT50: 90 - 180 days. [Oxadiazon tech]

Very toxic to fish/aquatic organisms with long lasting effects. Avoid contamination of any water supply with this product or empty container.

Very toxic to the soil environment. Selective herbicide - very toxic to some plant species (certain plants may be killed or damaged from root uptake of this product). Strongly adsorbed by soil colloids and humas with very little migration or leaching. Half life in soil is c. 3 - 6 months.

12. ECOLOGICAL INFORMATION:

Triple rinse empty container and add rinsate to the spray tank. If recycling, discard cap and deliver clean container to an Agrecovery depot. Alternatively crush and bury in an approved landfill.

Dispose of product only by using according to this label, or at an approved disposal facility. Avoid contamination of any water supply or stream with product or empty container.

13. DISPOSAL CONSIDERATIONS:

14. TRANSPORT INFORMATION:

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (Oxadiazon)

UN Number: 3082

Packing Group: III

Hazchem Code: 2X

15. REGULATORY INFORMATION:

**APPROVED HANDLER:** The product must be under the personal control of an approved handler when:
- a) the product is applied in a wide dispersive manner; or
- b) used by a commercial contractor.

However, it may be handled by a person who is not an approved handler if:
- an approved handler is present at the facility where the substance is being handled; and
- the approved handler has provided guidance to the person in respect to the handling of the product; and
- the approved handler is available at all times to provide assistance if necessary.

This product shall NOT be applied onto or into water.

**RECORD KEEPING:** A written record of use is required if 3 kg or more of this product is used within 24 hours in a place where:
- a) public may lawfully be present; or
- b) the substance is likely to enter air or water supply and leave the place where it is under control.

The information must be kept for a minimum of three [3] years.


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16. OTHER INFORMATION:

The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the product’s properties.