

I. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND SUPPLIER

Product Name: Baron™ 400 WP Selective Herbicide
Other Names: Oxyfluorfen;
2-chloro-1-(3-ethoxy-4-nitrophenoxy)-4-(trifluoromethyl) benzene
Product Code: None
Recommended Use: Selective Herbicide
Supplier: AgNova Technologies Pty Ltd
Address: P O 590
Eltham Vic 3095 Australia
Telephone: 0423 821 395
Facsimile: (02) 9722 2384
Website: www.agnova.com.au
Contact: Managing Director
Emergency Telephone Number: 0423 821 395

2. HAZARDS IDENTIFICATION**HAZARDOUS SUBSTANCE – DANGEROUS GOODS**

Hazard Designation: Classified as Hazardous according to the criteria of NOSCH
Risk Phrases: R36/38 Irritating to eyes and skin
Safety Phrases:
ADG: Dangerous Goods Class 9
Classification: Marine Pollutant
SUSDP: S5
Classification:

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients:	CAS Number:	Concentration (w/v):
oxyfluorfen	42874-03-3	40 %
calcium chloride	10043-52-4	< 10 %
inert ingredients	-	30 – 60 %

4. FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (Phone 13 11 26), and follow the advice given. Show this Material Safety Data Sheet to a doctor.

Inhalation:	Remove to fresh air. Apply artificial respiration if necessary. Get medical help if breathing difficulty persists.
Skin contact:	Remove contaminated clothing and wash skin thoroughly with soap and water. Obtain medical attention if irritation persists. Wash clothing before re-use.
Eye contact:	Immediately flush eyes with water for 15 minutes. If irritation persists see a doctor.
First Aid Facilities:	Provide washing facilities in the workplace.
Medical attention:	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

Extinguishing Media:	Carbon dioxide, dry chemical or water spray.
Hazards from Combustion Products:	Combustion generates toxic fumes of the following: hydrogen chloride, hydrogen fluoride and nitrogen oxides.
Precautions for Fire Fighters:	Remain upwind. Avoid breathing smoke. Use water spray to cool containers exposed to fire. Contain run-off. Wear self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES*Personal Precautions:*

Avoid contact with eyes and skin. Do not inhale dust or spray mist. If product on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

Environmental Precautions:

Material is highly toxic to aquatic organisms. Do NOT flush to drains or sewers. Do NOT contaminate streams, rivers or water courses.

Methods for Cleaning Up:

Clear area of all unprotected personnel. Wear protective equipment. Sweep up small spills and place in a suitable container for recovery or disposal.

Keep spills and cleaning run-off out of drains or sewers and open bodies of water.

Absorb spill in lime, sand, earth or non-combustible absorbent material. Place material in open top drum, clean up with small amount of detergent and water, absorb and place in drum. Seal drum and bury in an area approved by the local waste disposal authority.

Wipe down protective equipment in detergent solution and dry. Wash overalls, destroy if heavily contaminated.

Empty containers and product should not be burnt.

Shake bag contents into spray tank until the bag is empty. Do not dispose of undiluted chemicals on site. Puncture or shred and bury empty bags in a local authority land fill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty bags and product should not be burnt.

Observe government regulations.

7. HANDLING AND STORAGE**Handling:***Handling Precautions*

Avoid contact with eyes and skin. Do not inhale dust or spray mist. If product on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

Other Precautions:

None.

Storage: Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight.

Keep away from food and drink.

Ensure containers are correctly labelled and securely sealed.
Classified as a dangerous substance for transport purposes.

Eye-wash and washing facilities must be readily available. For disposing spills have lime, absorbent material and open head drums on hand.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards: No exposure limits have been established.

Engineering Controls: Good ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operators.

Personal Protective Equipment: Avoid contact with eyes and skin. Do not inhale dust or spray mist. If product on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: yellow brown free-flowing powder

Odour: musty

Vapour Pressure: Not applicable

Vapour Density: Not applicable

Boiling Point: Not applicable

Melting Point: Not available

Solubility: Dispersible in water

Bulk Density: 146 g/mL (loose) and 157 g/mL (packed)

pH: 7.49 (measured as 5% suspension in DI water)

Flash Point: Not available

Flammability Not flammable

(explosive) Limits:

Auto-Ignition Not available

Temperature:

Formulation: Wettable powder

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal storage conditions.
Hazardous Polymerisation:	
Conditions to Avoid:	Avoid temperatures above 200 °C for prolonged periods to prevent slow decomposition.
Incompatible Materials:	None known.
Hazardous Decomposition Products:	Thermal decomposition may yield the following: Hydrogen chloride and hydrogen fluoride.

11. TOXICOLOGICAL INFORMATION**Technical oxyfluorfen**

Oral Toxicity:	LD ₅₀ Oral (ingestion) Rat = > 5000 mg/kg
Dermal Toxicity:	LD ₅₀ Dermal (skin contact) Rat > 3000 mg/kg Rabbit > 5000 mg/kg
Inhalation Toxicity:	LC ₅₀ Aerosol (4 hr inhalation) Rat > 5.4 mg/L
Skin Irritation:	Essentially non-irritating
Eye Irritation:	Essentially non-irritating
Sensitisation:	No data available
Mutagenicity:	No data available

Significant Data with Possible Relevance to Human Health

No data available

12. ECOLOGICAL INFORMATION

Dangerous to fish. DO NOT contaminate ponds, irrigation channels, drains, streams, rivers or waterways with the chemical or used containers.

Technical oxyfluorfen

Fish Toxicity: Acute LC₅₀ (Rainbow trout *Oncorhynchus mykiss*) = 0.41 mg/L

Acute LC₅₀ (Channel catfish *Ictalurus punctatus*) = 0.4 mg/L

Acute LC₅₀ (Bluegill *Lepomis macrochirus*) = 0.2 mg/L

Daphnia

No data available

Toxicity:

Bird Toxicity: LD₅₀ > 2000 mg/kg

LC₅₀ > 5000 ppm

Bee Toxicity: No data available

Other: LC₅₀ earthworm (*Eisenia foetida*) > 1000 mg/kg

Environmental Fate, Biodegradation under aerobic laboratory conditions is below detectable limits (BOD₂₀ or BOD₂₈ is < 2.5%).

Persistence and Degradation: Biodegradation reached in Closed Bottle Test (OECD Test No. 301D) after 28 days is 1.2%.

13. DISPOSAL CONSIDERATIONS**1) After Intended Use:**

Empty containers and product should not be burnt.

Shake bag contents into spray tank until the bag is empty. Do not dispose of undiluted chemicals on site. Puncture or shred and bury empty bags in a local authority land fill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty bags and product should not be burnt.

2) After Spill or Accident:

Dispose of sealed containers at an approved local waste disposal site marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. Dispose of waste product through a reputable waste contractor. If disposal of unwanted treated seed is necessary, bury seed below 500 mm in a disposal pit, specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots.

14. TRANSPORT INFORMATION

UN Number: 3077
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SOLID, N.O.S. (Contains 40% oxyfluorfen)
Class and 9
Subsidiary Risk: Not applicable
Packing Group: III
EPG: HB76 Guide 47
Hazchem Code: 2X

15. REGULATORY INFORMATION

APVMA Approval Number: 59148

16. OTHER INFORMATION

Trademark Information: Baron™ - Trademark applied for.

Preparation Information: Replaces February 2006 edition.
Reason for update: updating supplier contact information.
Data Sources: Manufacturer product safety data and published data

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS 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.

The opinions expressed herein are those of qualified experts with the manufacturer. Since the use of this information and of these opinions and the conditions of use of this product are not within the control of AgNova Technologies Pty Ltd, it is the user's obligation to determine the conditions of safe use of the product.

END OF MSDS