



# WILLOWOOD LIMITED

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COMPANY WEBSITE: WWW.WILLOWOODHK.COM

ISO 9001:2008

## MATERIAL SAFETY DATA SHEET

### SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Fluroxypyr 200g/L EC

Usage: Herbicide

Other Names: Fluroxypyr, a Group I Herbicide. Use: For the control of a wide range of broadleaf weeds crops and other areas.

Chemical nature: Fluroxypyr is an aryloxyalkanoic acid derivative.

### SECTION 2 HAZARDS IDENTIFICATION

Not Classified as a Dangerous Good according to the ADG Code. Combustible Liquid (C1).

Risk Phrases:

R65 Harmful: may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness and cracking.

R67 Vapours may cause drowsiness and dizziness

Safety Phrases:

S2 Keep out of reach of children. S9 Keep container in a well ventilated place.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S46 If swallowed, seek medical advice immediately and show this container or label.

### SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients: CHEMICAL CAS NUMBER PROPORTION

Fluroxypyr 69377-81-7 200 g/L

Other ingredients (including water) determined not to be hazardous Balance

### SECTION 4 FIRST AID MEASURES

#### FIRST AID

Swallowed: Rinse mouth then drink plenty of water. Do not give anything by mouth to a semiconscious or unconscious person. If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre. Make every effort to prevent vomit from entering the lungs by careful placement of the patient.

Eye Contact: If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice.

Skin: Remove contaminated clothing and wash before re-use. Wash affected areas thoroughly with soap and water. If irritation persists, seek medical advice.

Inhaled: Remove affected person to fresh air until recovered.

Advice to Doctor: Treat symptomatically. If vomiting occurs, solvent present may cause pulmonary pneumonitis.

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## SECTION 5 FIRE FIGHTING MEASURES

Specific Hazard: Combustible Liquid (C1).

Flash point 66°C. Sealed, overheated containers may present an explosion hazard. Thermal decomposition and burning will produce toxic by-products.

Extinguishing media: Extinguish fire using carbon dioxide, foam or dry agent. If not available, use waterfog or fine water spray but ensure all runoff is contained.

Hazards from combustion products: May emit toxic fumes of hydrogen chloride, hydrogen fluoride or phosgene if involved in fires or exposed to extreme heat. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or smoke.

Precautions for fire-fighters and special protective equipment: Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe or contact smoke, gases or vapours generated.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

Emergency procedures: Isolate and post spill area. Wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles. Will irritate the eyes and skin. Avoid contact with eyes and skin. Large spills should be dyked or covered to prevent dispersal. Vacuum, shovel or pump spilled material into an approved container and dispose of as listed in section 13. Keep out unprotected persons and animals.

Material and methods for containment and cleanup procedures: To decontaminate spill area, tools and equipment, wash with detergent and water and add the solution to the drums of wastes already collected and label contents. Absorb, as above, any excess liquid and add both solutions to the drums of waste already collected. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities. Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways.

## SECTION 7 HANDLING AND STORAGE

Precautions for Safe Handling: Ensure containers are kept closed until using product. Sensitive workers should use protective clothing. When opening the container, preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles. After each day's use, wash gloves, face shield or goggles and contaminated clothing. Wash hands after use.

Conditions for Safe Storage: DO NOT store near (or allow to contact) fertilizers, fungicides or pesticides. Store in the closed original container, in a cool well ventilated area, out of direct sunlight. Store in a room or place away from children, animals, food, feed stuffs, seed and fertilizers. Not classified as a Dangerous Good. This product is a Schedule 5 Poison (S5) and must be stored, transported and sold in accordance with the relevant Health Department

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regulations. This product is classified as a C1 (Combustible Liquid) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to state regulations for storage and transport requirements.

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: Use in ventilated areas only. Use local exhaust at all process locations. Ventilate all transport vehicles prior to unloading. Keep containers closed when not in use.

Personal Protective equipment (PPE):

General: When opening the container, preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles. After each day's use, wash gloves, face shield or goggles and contaminated clothing. Wash hands after use.

Respiratory Protection: Generally not required. Use of a respirator may be required in certain circumstances. If an inhalation risk exists, wear a properly fitted half-face or full-face air-purifying respirator which is approved for pesticides (Australian Standards).

Personal Hygiene: Will irritate the eyes and skin. Avoid contact with eyes and skin. Sensitive workers should use protective clothing. Clean water should be available for washing in case of eye or skin contamination. Wash skin before eating, drinking or smoking. Shower at the end of the workday.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: yellow to amber brown liquid.

Odour: Typical solvent odour.

Boiling Point: ~200°C (solvent).

Solubility in Water: Disperses in water.

Specific Gravity: 0.9

Vapour Pressure: 0.02 mPa @ 20°C (Fluroxypyr).

Volatile Component: ~60%. Flash Point: 66°C.

Flammability: Combustible liquid C1. (AS1940).

Poison Schedule: This product is a schedule 5 (S5) poison.

## SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.

Conditions to avoid: Do not store for prolonged periods in direct sunlight.

Incompatible materials: Keep away from strong oxidising agents.

Hazardous decomposition products: May emit toxic fumes of hydrogen chloride, hydrogen fluoride or phosgene if involved in fires or exposed to extreme heat.

Hazardous reactions: No special considerations.

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## SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity - Oral, Rat LD50 (mg/kg) : > 2,000

Dermal, Rat LD50 [mg/kg] : > 4,000

Inhalation, Rat LC50 [mg/l/4h] : > 5.01

Skin corrosion/irritation : Mildly irritating •

Serious eye damage/irritation : Not irritant •

Respiratory or skin sensitisation : Non sensitizer

## SECTION 12 ECOLOGICAL INFORMATION

Effects on birds: Fluroxypyr is practically non-toxic to avian species based on acute exposure of bobwhite quail and mallard ducks that resulted in LD50 values >2,000 mg/kg. Following a subacute 5-day exposure, an LC50 of >5,000 mg/kg was reported.

Effects on fish: Acute toxicity tests evaluated by U.S. EPA indicate that fluroxypyr is slightly toxic to practically non-toxic to freshwater fish. For bluegill sunfish, a 96-hour LC50 >14.3 mg/L was reported. For rainbow trout, 96-hour LC50 values ranged from 13.4 mg/L to >100 mg/L

Effects on aquatic insects: Results from toxicity testing conducted on Daphnia magna indicate that fluroxypyr is practically non-toxic to this species of invertebrate. The 48- hour EC50 for this toxicity test was >100 mg/L. Some estuarine/marine invertebrates were reported to be more toxic. Fluroxypyr acid was highly toxic to eastern oyster with 96-hour LC50/EC50 = 0.068 mg/L.

Fluroxypyr 1-methyleptyl ester was slightly toxic to the eastern oyster with 96-hour LC50/EC50 = 51 mg/L. This compound was practically non-toxic to grass. shrimp with a 96-hour LC50/EC50 >120 mg/L

Environmental Fate A typical half-life for fluroxypyr in soils is 36 days (see "Half-life" text box). Microbes and sunlight break down fluroxypyr in the environment. Fluroxypyr's potential to leach to groundwater is intermediate; surface runoff potential is high, and potential for loss on eroded soil is low. Fluroxypyr has moderate volatility and the potential for loss to the atmosphere is moderate. Fluroxypyr does not bioconcentrate (build up) through the food chain. Plants take up fluroxypyr through the leaves and roots. Fluroxypyr is translocated (moved throughout) to other plant parts.

## SECTION 13 DISPOSAL CONSIDERATIONS

Spills & Disposal: Isolate and post spill area. Wear prescribed protective clothing and equipment. Large spills should be dyked or covered to prevent dispersal. Keep out animals and unprotected persons. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum. To decontaminate spill area, tools and equipment, wash with detergent and water and add the solution to the drums of wastes already collected and label contents. Dispose of

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drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities.

Disposal of empty containers: Triple or preferably pressure rinse containers before disposal. Add rinsings to tank mix. Do not dispose of undiluted chemicals on-site. If not recycling, break, crush, or puncture and deliver empty packaging for appropriate disposal to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.

## SECTION 14 TRANSPORT INFORMATION

UN number

UN N° : 1993

Hazard Label(s) : 3 : Flammable liquid.

UN proper shipping name

Land transport - ADR/RID : FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C9, aromatics)

Sea transport - IMO-IMDG : FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C9, aromatics)

Air transport - ICAO/IATA : FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C9, aromatics)

Transport hazard class(es)

Land transport - ADR/RID : 3

Sea transport - IMO-IMDG : 3

Air transport - ICAO/IATA : 3

Packing group

Land transport - ADR/RID : III

Sea transport - IMO-IMDG : III

Air transport - ICAO/IATA : III

Environmental hazards - IMDG-Marine pollution : Marine pollutant - Polluant marin

## SECTION 15 REGULATORY INFORMATION

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations. The following ingredients: Aromatic hydrocarbons, are mentioned in the SUSDP.

## Section 16 - Other Information

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.

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