



Excel Crop Care Limited
Beyond crop protection. Behind every farmer

Excel Crop Care Limited, India

Material Safety Data Sheet

Fluroxypyr 1-Methylheptyl Ester (FMPE)

1. Chemical Product and Company Identification

Product Name	: Fluroxypyr 1-Methylheptyl Ester Technical (FMPE)
Formula	: C ₁₅ H ₂₁ Cl ₂ F N ₂ O ₃
Molecular Weight	: 367.2
Chemical Name	: 1- methylheptyl [(4-amino-3,5-dichloro-6-fluoro-2-pyridinyl) oxy] acetate
Manufacturer	: Excel Crop Care Limited 184 / 87, S. V. Road, Jogeshwari (West), a) Mumbai, (India). Pin code: 400 102 Contact no: +912266464200
Emergency Contact Details	: +91 22 42522201 : +91 22 42522202 : +91 278 2212320

2. Composition/Information on Ingredients

Component	CAS No.	% W/W content
Fluroxypyr 1-methylheptyl ester	81406-37-3	98 minimum

3. Hazard Identification

Emergency Overview

Appearance and odour : Off white solid powder.

Warning Statements : Keep out of reach of children

Potential Health Effects

Likely Routes of Exposure : Skin contact, Inhalation and Ingestion

Eye Contact : May cause mild eye irritation and redness to eyes

Skin contact : Not a skin irritant, unlikely to be absorbed through skin.

Ingestion : Could be harmful if swallowed



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Inhalation : Could be harmful if inhaled.

Environmental Hazards : Non-toxic to aquatic organisms. .

4. First aid measures and Antidote

Emergency and First Aid Procedure –

- If in Eyes** : Immediately flush with plenty of clean water for 15-20 minutes. Remove contact lenses if present after 5 minutes of washing. Get medical attention
- If on Skin** : Wash with plenty of clean water and soap. Get medical attention.
- If Inhaled** : If experiencing any distress/discomfort, immediately remove the affected person to fresh air and obtain medical advice.
- If Swallowed** : Never give any thing through mouth to unconscious person. Get medical attention
- Note to Physician** : Treat symptomatically
- Antidote** : No specific antidote known

5. Fire Fighting Measures

- Hazardous product of Combustion** : May emit toxic fumes of decomposition products during combustion
- Extinguishing Media** : Foam, Dry chemical powder, CO₂ type extinguisher or flood with water.
- Unusual Fire and Explosion Hazards** : The product does not pose any unusual fire hazard. It is advisable for firemen to avoid direct contact.
- Fire Fighting Equipment** : Evacuate area and fight fire from a safe distance. Approach from upwind to avoid hazardous vapours and decomposition products. Use self-contained breathing apparatus. Used equipments should be thoroughly decontaminated.



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6. Accidental Release Measure

- Personal Protection** : Observe all protection and safety precautions. Depending on the magnitude of the spill, use of eye protection, gloves and boots when cleaning up spills are recommended. For PPE see Section 8.
- Steps to be taken in case of a spill** : It is recommended to have a predetermined plan / SOP for the handling of spills.
- Stop the source of the spill immediately, if safe to do so. Contain the spill to prevent any further contamination of soil or water.
- Keep all bystanders away. Wear full-length clothing and PVC gloves. Shovel and collect the spilled material / contaminated absorbent and place in suitable containers. Thoroughly scrub the floor or other impervious surfaces with a strong industrial detergent and rinse with water.
- Spills in water** should be contained as much as possible by isolation of the contaminated water. The contaminated water must be collected and removed for treatment or disposal through incineration.

7. Handling and Storage

- Precautions in Handling** : In an industrial environment, such as while making formulation, filling or packing, it is recommended to avoid physical contact with the product and to have adequate ventilation.
- Avoid spillage into the eyes, or contact with bare skin or clothing. Avoid inhaling dust. Wash hands, feet, face thoroughly after handling. Remove contaminated clothing immediately
- Precautions in Storage** : The product is stable under normal conditions of warehouse storage. Keep container lids tightly closed
- Store in a cool, dry, well-ventilated place away from foodstuffs, animal feed under lock & key.
- Specific Use** : The product is meant / approved to be used as herbicide.



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8. Exposure Controls/Personal Protection

- Exposure Limit Values** : Exposure limits have not been established for FMPE. However, exposure limit values defined by local regulations may exist and must be checked / observed.
- Personal Protection** : When used in a closed / automated system, personal protection equipment may not be required. When closed system is not possible in case of maintenance, repair, sampling etc, systems must be made nonhazardous before opening
- Respiratory Protection** : The product is likely to pose inhalation exposure concern during normal handling, use suitable dust mask. In the event of an accidental discharge of the material during manufacture or handling which produces a dust, workers should put on respiratory protection equipment with a universal filter
- Protective Gloves** : Wear appropriate protective gloves
- Eye Protection** : Wear goggles, face shield or safety glasses. It is recommended to have an eye wash fountain available in the work area.
- Skin Protection** : Wear appropriate protective clothing to prevent direct skin contact

9. Physical and Chemical Properties

- Physical State** : Solid
- Appearance** : Off white powder
- Odour** : No characteristic odour.
- Density** : 1.32-±0.02 at 20 °C.
- pH value** : 6.38 ± 0.02 at 20 °C
- Viscosity** : Not applicable
- Vapour Pressure** : 3.87 x 10⁻⁵ Pa at 25°C
- Vapour Density** : Not applicable
- Melting Point / Freezing Point** : 57.7± 0.17°C
- Boiling Point** : Not Applicable
- Flash Point** : Not Applicable



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Auto Ignition Temp : Not applicable
Flammable Limits : Not applicable
Solubility in Water : 0.0347×10^{-3} g/lit at 20 °C

10. Stability and Reactivity

Chemical Stability : Product is stable under ambient condition of storage.
Materials to Avoid : Avoid contact with strong oxidizing agent, acids, alkalis etc.
Hazardous Decomposition Product : Refer to section no. 5
Hazardous Polymerisation : Not known

11. Toxicological Information

Health Hazards : Refer to section no. 3
Acute Toxicity : The product is practically non-toxic. However, exposure case should be treated symptomatically.
Route(s) of Entry
Ingestion : LD50, oral, rat: >2000 mg/kg body weight of rat
Skin : LD50, dermal, rat: > 2000 mg/kg body weight
Inhalation : 4 hour LC50, rat: >3.39 mg/ L air

12. Ecological Information

Acute Oral Toxicity in Birds : In Mallard duck >2000 mg/kg
In bob white quail >2000 mg/Kg
Acute Toxicity in Fish : Rainbow trout & golden orfe
LC₅₀ (96 hrs) >100mg/L
Acute Toxicity Honey bees : LC₅₀ 48 Hrs. >25µg/bee (oral & contact)



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13. Disposal Considerations

- Waste Treatment Methods** : Keep out of drains, sewers, ditches and waterways. Left-over material that should not be used or chemically reprocessed and should be disposed of in a landfill approved for pesticide disposal. Other possible methods of disposal are controlled incineration with flue gas scrubbing
- Containers** : Emptied containers may retain vapour and product residue. Observe all labeled safeguards until container is cleaned or destroyed.
- Triple or pressure rinse empty containers. Pour rinse water into formulation tank. Store for collection by approved waste disposal service.
- Dispose of as non hazardous industrial waste. Do Not re-use containers.
- Disposal of waste and packaging materials must always be in accordance with all applicable local laws / regulations.

14. Transport Information

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

Not hazardous under the applicable DOT, ICAO/IATA, IMO, TDG and Mexican regulations.

UN Classification – Not classified as hazardous material for transport.

DOT (Department Of Transportation)

- DOT Proper Shipping Name** : Environmentally Hazardous substance, Solid, n. o. s. (Fluroxypyr 1-mthylheptyl ester)
- DOT Hazard class / I D No.** : 9
- DOT Label** : Class-9
- HAZCHEM No** : 4 W
- UN No.** : 3077
- Packing Group** : III



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15. Regulatory Information

Contains : Fluroxypyr 1-methylheptyl ester Technical (CAS No. 81406-37-3)

Product Classification

Acute : Yes

Chronic : No

Fire : No

Reactivity : No

Pressure Generating : No

NFPA Codes

Health : 1

Flammability : 0

Reactivity : 0

16. Other Information

This MSDS is intended for worker and transport safety. It summarizes 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.

This material should be handled by persons who are made aware of its hazardous properties and have been instructed in the required safety precautions.

This MSDS is not intended for product users who should refer to the product label for safety precautions applicable to them.

The information provided in this safety data sheet is believed to be accurate and reliable, but uses of the product may vary and situations unforeseen by Excel Crop Care Limited may exist. The user has to check the validity of the information under local circumstances.