Fluazifop-p-butyl: Herbicide

Formulation types: Emulsifiable concentrate (EC), Emulsion, oil in water (EW)
Chemical family: Aryloxyphenoxypropionate

What is Fluazifop-p-butyl?
Fluazifop-p-butyl has excellent efficacy against not only annual grasses but also perennial grasses. It is very safe for broad leaf crops such as soybean, peanut, cotton, oil palm, citrus, vegetable, etc. It cannot be applied to a rice crop.

How does it work? (mode of action)
Fluazifop-p-butyl is a selective systemic herbicide that is quickly absorbed through the leaf surface and green stems and translocated throughout the plant. It accumulates at growing points, both above ground and in the roots, rhizomes, and stolons of grass weeds. Following post-emergent application, treated weeds stop growing within 48 hours. First symptoms are not evident for at least a week after application. Growing points turn brown and rot; shoot tips can be easily pulled out after two to three weeks. Young leaves turn yellow or redden soon after, but more mature leaves may remain green for extended periods. Weed control is usually complete three to five weeks after spraying.

Resistance: Limiting the resistance of weeds to herbicides is a big concern for most users. Herbicide resistance leads to reduced yields, increased control costs, and stress. Generally, herbicide resistance develops when farmers use the same herbicide or herbicides with the same mode of action repeatedly over some time. Depending on the cropping system, weeds present, and the herbicides used, resistance can develop quickly. Therefore, users should rotate crops, integrate physical weekly control strategies (tillage), and rotate herbicides with different modes of action.

### Human Hazards

<table>
<thead>
<tr>
<th>Human Hazards</th>
<th>Environmental Fate</th>
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<tbody>
<tr>
<td>Low acute toxicity</td>
<td>Bird (quail): Nontoxic</td>
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<tr>
<td>Slight skin irritation</td>
<td>Fish (trout): Very toxic</td>
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<tr>
<td>Moderate eye irritation</td>
<td>Mammals (rabbit): Low toxic</td>
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<tr>
<td></td>
<td>Bees (honey): Very low toxic</td>
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<td>Ground water/surface water: No threat</td>
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First aid measures:

**Inhalation:** Move the victim to fresh air and observe until recovery. If discomfort persists more than 30 minutes, seek medical advice.

**Skin Contact:** Flush with lukewarm, gently flowing water for five minutes or until chemical is removed. If irritation becomes painful or persists, seek medical advice.

**Eye Contact:** Flush contaminated eye(s) with lukewarm, gently flowing water for five minutes or until chemical is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes.
Ingestion: Wash mouth with water and contact a Health Center or a doctor.

Mitigation Measures:
- Wear protective clothing such as a long-sleeved shirt, long pants, rubber gloves, boots, glasses, etc.
- Wash hands with soap and water after use.
- Contain spill and absorb with sand, soil, or absorbent granules and do not use near open water sources or fish ponds.
- Do not allow product or washings to enter the waterways or sewer.
- Triple rinse empty containers prior to disposal. Do not re-use empty containers for any other purpose
- Store in the original container in a cool, dry, ventilated place.
- Store away from sunlight.
- Store away from foodstuffs, children, and animals.
- Do not allow product to get wet in storage.
- Keep container sealed when not in use.
- Do not apply when bees are active.
- Do not apply around open bodies of water, including fish ponds.
- Chemical sprayers and mix tanks have to be cleaned in designated areas and separated from the insecticide sprayer if available.
- Apply under favorable weather conditions.
- Practice chemical rotation.
- Practice correct implementation of integrated pest management practices.