

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name:	Fluazifop-P-butyl 150g/L EC
Substance:	Emulsifiable concentrate of Fluazifop-P-butyl
Chemical name of active ingredient:	IUPAC Name: butyl (<i>R</i>)-2-[4-(5-trifluoromethyl-2-pyridyloxy)phenoxy]propionate CA Name: butyl (<i>R</i>)-2-[4-[[5-(trifluoromethyl)-2-pyridinyl]oxy]phenoxy]propanoate
EC/List No.	Not available.
CAS No.	79241-46-6

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Agricultural herbicide

1.3 Details of the Supplier of the safety data sheet

Manufacturer: Spinchem Tech Co.,Ltd
Address: No 2278, Zhaochong Rd, Shanghai, China.
Emergency telephone (86) 21 64238765
No.:

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No1272/2008 (CLP)

Flammable liquids (Category 3)
Acute toxicity, Oral (Category 5)
Acute toxicity, Dermal (Category 5)
Skin corrosion/irritation (Category 3)
Serious eye damage/eye irritation (Category 2B)
Reproductive toxicity (Category 2)
Acute aquatic toxicity (Category 1)

2.2 Label elements



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Hazard pictograms

Signal word: Warning

Danger

Hazard statement(s)

H226 Flammable liquid and vapour.

H303 + H313 May be harmful if swallowed or in contact with skin.

H316 Causes mild skin irritation.

H320 Causes eye irritation.

H361 Suspected of damaging fertility or the unborn child.

H400 Very toxic to aquatic life.

Precautionary statement(s)

P273 Avoid release to the environment.

P281 Use personal protective equipment as required.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Other hazards None.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS No.	Index No.	Content
Fluazifop-P-butyl	79241-46-6	607-305-00-3	150g/L
Others	Not applicable	Not applicable	Up to 100%

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Have the product container, label or Safety Data Sheet with you when going for treatment. Tell the person contacted the complete product name, and the type and amount of exposure. Describe any symptoms and follow the advice given.

If ingested

Do not induce vomiting. Call a physician and/or transport to emergency facility immediately. The decision of whether to induce vomiting or not should be made by a physician.

If inhaled

Remove to fresh air. Keep patient warm and at rest. Call for a physician or Poison

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Control Centre immediately.

In case of skin contact

Take off contaminated clothing. Rinse skin immediately with soap and plenty of water for 15 to 20 minutes. If irritation develops, get medical attention.

In case of eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

4.2 Most important symptoms and effects, both acute and delayed

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

The most important known symptoms and effects are described in the labeling (see section 2) and /or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

There is no specific antidote available. Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing Media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: No data available.

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Hydrogen fluoride.

5.3 Advice for firefighters

Wear protective clothing and self-contained breathing apparatus. Do not allow run-off from firefighting to enter drains or water courses. Cool closed containers exposed to fire with water spray. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

5.4 Conditions of flammability

Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Method and material for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

If appropriate Sections 8 and 13 shall be referred to.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Ensure adequate ventilation. Vapors may form explosive mixture with air. Take measures to prevent the build up of electrostatic charge. When preparing spray and using the prepared spray wear: cotton overalls buttoned to the neck and wrist (or equivalent clothing), a washable hat, elbow-length PVC gloves. If using a hand directed sprayer, wear, in addition: waterproof trousers, boots. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing.

7.2 Conditions for safe storage, including any incompatibilities

Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilizers. Keep out of reach of children.

7.3 Specific end uses

Recommendations: Use as agricultural herbicide.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

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Components with workplace control parameters.

Exposure limits: Not available.

8.2 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of workday.

Personal protection equipment

Eye Protection: Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

Skin Protection: The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when handling this product.

Body protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

Respiratory protection: If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable Dust Mask.

Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Discharge into the environment must be avoided.

User safety recommendations:

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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Appearance:	Brown to Dark brown liquid
Vapor Pressure:	Not applicable for the end-use product, refer to the active substance, 4.14×10^{-1} mPa (25 °C, Fluazifop-P-butyl)
S.g./density:	Test and report.
Water solubility:	Dispersible in water.
Partition coefficient	Not applicable for the end-use product, Refer to the active substance, $K_{ow} \log P=4.95$ (20 °C, Fluazifop-P-butyl)
Flash point:	No data available.

SECTION 10: STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Will not occur.

Conditions to avoid

No data available.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Other decomposition products - No data available.

In the event of fire: see section 5.

SECTION 11: TOXICOLOGICAL INFORMATION

There is no data available for the formulation type, so the technical information is listed for the reference.

Acute Oral	Rats: male, $LD_{50}=3680$ mg/kg; female, $LD_{50}=2451$ mg/kg
Inhalation	Rats: LC_{50} (4 h) >6.06 mg/L air
Skin and Eye	Rabbits: Acute percutaneous $LD_{50}>2000$ mg/kg Rabbits: Slight skin and mild eye irritant.
Skin sensitization	Not a skin sensitiser (guinea pigs).
Mutagenic toxicity:	No data available.
Teratogenic toxicity	Possible risk of congenital malformation in the fetus. Suspected

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	human reproductive toxicant
Carcinogenicity:	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
Reproductive toxicity:	No data available.
STOT-single exposure	No data available
STOT-repeated exposure	No data available
Aspiration hazard	No data available

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Bird	Mallard ducks:	Acute oral LD ₅₀ >3500 mg/kg
Fish	Rainbow trout:	LC ₅₀ (96-hour) =1.3mg/L
Daphnia	Daphnia:	EC ₅₀ (48 h) >1.0 mg/l.
Algae		E _b C ₅₀ (72 h) for <i>Navicula pelliculosa</i> 0.51 mg/l.
Bees		Very low toxicity to bees. LD ₅₀ (oral and contact) >0.2 mg/bee
Worms		LC ₅₀ >1000 mg/kg.
Other aquatic spp.		EC ₅₀ (14 d) for <i>Lemna gibba</i> >1.4 mg/l.

Persistence and degradability

In moist soils, rapid degradation of fluazifop-P-butyl occurs, DT₅₀ <24 h.

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

Result of PBT and vPvB assessment

No data available.

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life.

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SECTION 13: DISPOSAL CONSIDERATIONS

Triple or preferably pressure rinse containers before disposal. Add rinsing to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill available, bury the containers below 500mm in a disposal pit specifically 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 washings, contaminated materials, used absorbents and other waste materials as directed by local regulations

SECTION 14: TRANSPORT INFORMATION

UN number

ADR/RID: 3082

IMDG: 3082

IATA: 3082

UN proper shipping name

ADR/RID: Environmentally hazardous substance, Liquid, N.O.S

IMDG: Environmentally hazardous substance, Liquid, N.O.S

IATA: Environmentally hazardous substance, Liquid, N.O.S

Transport hazard class(es)

ADR/RID: 9

IMDG: 9

IATA: 9

Packaging group

ADR/RID: III

IMDG: III

IATA: III

Environmental hazards

IMDG Marine pollutant: yes

Special precautions for user

No data available.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

No data available

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance by the supplier.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

STOT: Special target organ toxicity.

IARC: International Agency for Research on Cancer.

ACGIH: American Conference of Governmental Industrial Hygienists.

Key literature references and sources for data

Epeesticide Manual.

Relevant H-Statements

H226 Flammable liquid and vapour.

H303 + H313 May be harmful if swallowed or in contact with skin.

H316 Causes mild skin irritation.

H320 Causes eye irritation.

H361 Suspected of damaging fertility or the unborn child.

H400 Very toxic to aquatic life.

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we have been advised of the possibility of such damages.