



SAFETY DATA SHEET

SL-118 Low Toluene

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Product identifier

Product name: Fluazifop-P-butyl Low Toluene
Synonyms: SL-118 technical, SL-118 Low Toluene

1.2. Relevant identified uses of the substance or mixture

Herbicide

1.3. Details of the supplier of the safety data sheet:

Manufacturer:

Company Name; ISHIHARA SANGYO KAISHA, LTD.
Address; 3-15 EDOBORI 1-CHOME, NISHI-KU, OSAKA, 550-0002
JAPAN
Phone Number: +81-6-6444-7154
Facsimile Number: +81-6-6444-7156

1.4. Emergency phone number:

ISHIHARA SANGYO KAISHA, LTD.
Phone Number: +81-6-6444-7154

2. HAZARDS IDENTIFICATION

2.1. GHS Classification

Physical Hazards :	
Explosives	Not applicable
Flammable gases	Not applicable
Flammable aerosols	Not applicable
Oxidizing gases	Not applicable
Gases under pressure	Not applicable
Flammable liquids	Category 4
Flammable solids	Not applicable
Self-reactive substances and mixtures	Not applicable
Pyrophoric liquids	Not classified
Pyrophoric solids	Not applicable
Self-heating substances and mixtures	Classification not possible
Substances and mixtures which, in contact with water, emit flammable gases	Not classified
Oxidizing liquids	Not applicable
Oxidizing solids	Not applicable
Organic peroxides	Not applicable
Corrosive to metals	Classification not possible
Health Hazards :	
Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation : gases)	Not applicable
Acute toxicity (inhalation : vapours)	Classification not possible
Acute toxicity (inhalation : dusts)	Not applicable
Acute toxicity (inhalation : mists)	Not classified
Skin corrosion/ irritation	Not classified
Serious eye damage/ eye irritation	Not classified



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	Respiratory sensitization	Classification not possible
	Skin sensitization	Category 1
	Germ cell mutagenicity	Not classified
	Carcinogenicity	Not classified
	Reproductive toxicity	Category 1B
	Specific target organ toxicity -Single exposure	Not classified
	Specific target organ toxicity -Repeated exposure	Category 2 (liver, kidney)
	Aspiration hazards	Classification not possible
Environmental Hazards :		
	Acute aquatic toxicity	Category 1
	Chronic aquatic toxicity	Category 1
	Hazardous to the ozone layer	Classification not possible

2.2. GHS label elements, including precautionary statements.

Pictograms or hazard symbols:



Signal word:

Danger

Hazard statements:

- | | |
|------|---|
| H227 | Combustible liquid |
| H317 | May cause an allergic skin reaction. |
| H360 | May damage fertility or the unborn child. |
| H373 | May cause damage to liver or kidney through prolonged or repeated exposure. |
| H410 | Very toxic to aquatic life with long lasting effects. |

Precautionary statements:

Safety measures

About the safety measures, refer to "7. HANDLING AND STORAGE", "8. EXPOSURE CONTROLS/ PERSONAL PROTECTION"

- | | |
|------|---|
| P210 | Keep away from heat/sparks/open flames/hot surfaces.-No smoking. |
| P280 | Wear protective gloves/protective clothing/eye protection /face protection. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P260 | Do not breathe mist/vapours/spray. |
| P273 | Avoid release to the environment. |

First-aid measures

About the First-aid measures, refer to "4. FIRST-AID MEASURES", "5. FIRE-FIGHTING MEASURES"

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|-------------|---|
| P370 + P378 | In case of fire: Use water spray, dry chemical, CO ₂ or form for extinction. |
| P302 + P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P333 + P313 | If skin irritation or rash occurs: Get medical advice/attention. |



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P362 + P364	Take off contaminated clothing and wash it before reuse.
P308 + P313	If exposed or concerned: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P391	Collect spillage.
Handling and storage	
About the Handling and storage, refer to "7. HANDLING AND STORAGE"	
P403	Store in a well-ventilated place.
P405	Store locked up.
Disposal considerations	
About the Disposal considerations, refer to "13. DISPOSAL CONSIDERATIONS"	
P501	Dispose of contents/container in accordance with governmental and local regulations.

2.3. Other hazards
None.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1. Chemical identity

Substance or Mixture: Substance

<u>Chemical name</u>	<u>Content (w/w %)</u>	<u>CAS Registry No.</u>
Fluazifop-P-butyl	≥91.0	79241-46-6
Toluene	<0.3	108-88-3

Common Chemical Name:

Butyl(R)-2-[4-[[5-(trifluoromethyl)-2-pyridinyl]oxy]phenoxy]propionate

4. FIRST-AID MEASURES

4.1. First-aid measures

- IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF ON SKIN : Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
- IF INHALED : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.
- IF SWALLOWED : Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.
- If exposed or concerned: Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed:

No data available.

4.3. Indication of any immediate medical attention and special treatment needed:

No data available.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing Media:

Water spray, dry chemical, CO₂ or foam

5.2. Specific Hazards : Release of toxic fumes (HF, NO_x) by heating and burning.

5.3. Protection of Firefighters:

Positive pressure self-contained breathing apparatus (SCBA) and



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protective clothing

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions:

Avoid contact with the skin, eyes and clothing.

6.2. Environmental Precautions:

Do not release into the environment.

6.3. Methods for Cleaning Up:

Absorb spills onto sand or any suitable absorbent material. Chemical eye goggles, rubber gloves, a laboratory coat or apron should be worn while handling this chemical.

7. HANDLING AND STORAGE

7.1. HANDLING : Keep away from heat/sparks/open flames/hot surfaces.-No smoking. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist/vapours/spray. Avoid release to the environment.

7.2. STORAGE : Store in a well-ventilated place. Keep cool. Store locked up.

7.3. Specific end use(s):

See information supplied by the manufacturer for the identified use(s)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters : Toluene 20ppm (ACGIH TLV-TWA, 2010)
Fluazifop-P-butyl 0.5mg/m3 (Syngenta, 8hrs TWA)

8.2. Engineering Measures:

Good industrial hygiene practice (GIHP) dictates that indoor work areas should be isolated and provided with adequate local exhaust ventilation.

8.3. Personal Protective Equipment

Respiratory protection:

NIOSH-approved positive pressure self-contained breathing apparatus (SCBA), positive pressure airline respirator or respirator equipped with an organic vapor cartridge.

Hand protection : Rubber gloves

Eye protection : Safety glasses, goggles, face shield

Skin and body protection:

A laboratory coat, apron or boots should be worn while handling this chemical.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Physical State : Liquid or Solid
9.2. Color : Brown
9.3. Boiling Point : 164°C/0.02mmHg
9.4. Melting Point : No data available
9.5. Vapor Pressure : 2.5E-7mmHg (20°C)
9.6. Flash Point : 85.0°C (Setaflash)



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- 9.7. Auto-ignition : No data available
9.8. Explosion Properties: No data available
9.9. Specific Gravity : 1.218 g/cm³ (20°C)
9.10. Evaporation Rate : No data available
9.11. Solubility in Water: 0.93mg/L (25°C)
9.12. Soluble in : Acetone, Cyclohexanone, Methanol, Hexane, Ethyl acetate, Toluene
9.13. Odor : Weak odor
9.14. Log Pow : >5.3 (25°C)
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10. STABILITY AND REACTIVITY

- 10.1. Reactivity : No data available.
10.2. Stability : Material is stable under normal conditions.
10.3. Conditions and Materials to Avoid:
Heat sources, ignition sources.
10.4. Hazardous Decomposition Products:
Thermal breakdown of this product during fire or very high heat condition may evolve the following hazardous decomposition product: Carbon oxides and traces of incompletely burned carbon compounds. Hydrogen fluoride. Nitrogen oxides.
10.5. Hazardous Polymerization: Will not occur
10.6. Possibility of hazardous reactions:
No data available
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11. TOXICOLOGICAL INFORMATION

- 11.1. Acute Oral Effects:
LD₅₀ (rat) 2,451 mg/kg (female), 3,680 mg/kg (male)
11.2. Acute Dermal Effects:
LD₅₀ (rat) >2,110 mg/kg (male & female)
11.3. Acute Inhalation Effects:
LC₅₀ (rat) >5.24 mg/L (mist, 4 hours, male & female)
11.4. Skin Effects : Slightly irritating to skin (rabbit)
11.5. Eye Effects : Slightly irritating to eyes (rabbit)
11.6. Contact Sensitization:
Respiratory: No data available
Skin: Sensitizing (mouse)
11.7. Mutagenicity : Negative
11.8. Carcinogenicity : Negative
11.9. Reproductive Toxicity:
Category of the chemical is "1B", because it includes less than 0.3% of toluene (reproductive toxicity category 1A).
11.10. Specific target organ toxicity -Single exposure:
There was no symptom at acute studies.
11.11. Specific target organ toxicity -Repeated exposure:
In 30 days and 13 weeks oral repeated dose studies in rat, toxic effects in liver and kidney were observed.
11.12. Aspiration hazard : No data available
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12. ECOLOGICAL INFORMATION

- 12.1. Aquatic organism toxicity:
Rainbow trout : LC₅₀ 1.41 mg/L (96h)
Daphnia magna : EC₅₀ >1 mg/L (48h)



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Americamysis bahia	: EC ₅₀	0.54 mg/L (96h)
Scenedesmus subspicatus	: EbC ₅₀	>1.8 mg/L (96h)
	: ErC ₅₀	>1.8 mg/L (96h)
Navicula pelliculosa	: EbC ₅₀	0.51mg/L (72h)
	: ErC ₅₀	1.4 mg/L (72h)

- 12.2. Persistence and degradability:
No data available
- 12.3. Bioaccumulative potential:
No data available
- 12.4. Mobility in soil : No data available
- 12.5. Hazardous to the ozone layer: No data available

13. DISPOSAL CONSIDERATIONS

- 13.1. Disposal methods:
- Products: Dispose of contents/container in accordance with governmental and local regulations.
Incinerate the product in a facility including alkali scrubber, because toxic gas is generated when incinerating.
- Packaging/Container:
Dispose of at an approved site.
Incinerate at a licensed installation.

14. TRANSPORT INFORMATION

- UN number : 3082
- UN proper shipping name : Environmentally hazardous substance, liquid, n.o.s. (Fluazifop-P-butyl)
- Transport hazard class : 9
- Packing group : III
- Environmental hazards : Environmentally hazardous substance mark - yes

15. REGULATORY INFORMATION

Comply with governmental and local regulations.

International inventories:

- EINECS Status : On the inventory, or in compliance with the act.
- AICS Status : On the inventory, or in compliance with the act.
- DSL Status : On the inventory, or in compliance with the act.
- ENCS (JP) Status : On the inventory, or in compliance with the act.
- KECI (KR) Status : On the inventory, or in compliance with the act.
- PICCS (PH) Status : On the inventory, or in compliance with the act.



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IECSC (CN) Status : On the inventory, or in compliance with the act.

16. OTHER INFORMATION

All information contained in this Safety Data Sheet is furnished free of charge and intend for your evaluation. In our opinion, the information is, as of the date of this Safety Data Sheet, reliable; however, it is your responsibility to determine the suitability of the information for your use. You are advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional or variable conditions or circumstances exist or because of applicable laws or government regulations. Therefore, you should use this information only as a supplement to other information gathered by you; and you must make independent determinations of the suitability and completeness of the information from all sources to assure both proper use of the material described herein and the safety and health of employees. Accordingly, no guarantee expressed or implied is made by Ishihara Sangyo Kaisha, Ltd. as to the results to be obtained based upon our use of the information, nor does Ishihara Sangyo Kaisha, Ltd. assume any liability arising from your use of the information.

Prepared by : Production Technology Division
(Phone Number : +81-59-345-6118)

Approved and Responsible by :
Environmental Safety & Health Administration Group
(Phone Number : +81-59-345-6205)