

Safety Data Sheet (SDS) FluZade

According to UN GHS 8th Ed
Revision Date: 21/07/2022

First print date: 01/06/2018
Version: 1.1

SECTION 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

Product identifier:

Identification as on the label/Trade name: FluZade

Common name: Fluazifop-P-butyl 125 g/L EC

Relevant identification uses of the substance and uses advised against:

Identified uses: Herbicide

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

Enviro Bio-Chem (Pty) Ltd, 44 Kerk Street,
Lichtenburg, North West, South Africa, 2740

Details of the Registration Holder:

Erintrade cc t/a RT Chemicals, 44 Kerk Street,
Lichtenburg, North West, South Africa, 2740

Contact Details:

Telephone: +27 87 231 7261

Fax: 086 541 7948

Website: www.envirobiochem.co.za

Emergency telephone numbers:

24 Hour Emergency Number: Bateleur: +27 83 123 3911

Griffon Poison Information Centre: +27 82 446 8946

Poisons Information Helpline: 0861 555 777

Tygerberg Hospital: +27 21 931 6129

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to Regulation (EC) No 1272/2008 EU-GHS/CLP

Hazard classes/Hazard categories	Hazard statement
Flammable Liquid (Category 3)	H226
Skin irritation (Category 2)	H315
Eye irritation (Category 2)	H319
STOT SE (Category 3)	H335
STOT SE (Category 3)	H336
STOT RE (Category 2)	H373
Aspiration Hazard (Category 1)	H304
Toxic to reproduction (Category 2)	H361d
Aquatic Toxicity Acute (Category 2)	H401
Aquatic Toxicity Chronic (Category 2)	H411

For full text of H statements see section 16

The most important adverse effects

The most important adverse physicochemical effects: Flammable liquid and vapour

The most important adverse human health effects: Suspected of damaging fertility or the unborn child. May be fatal if ingested and aspiration occurs. Causes skin irritation. Causes serious eye irritation. Suspected of causing genetic defects. May cause damage to organs through prolonged or repeated exposure. May cause respiratory irritation.

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Label elements


Hazard pictograms:
Signal Word: Danger

Hazard Statements:

H226	Flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H361d	Suspected of damaging fertility or unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

Precautionary Statements:

P102	Keep out of reach of children
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash hands, forearms, and face thoroughly after handling
P270	Do not eat, drink, or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P233	Keep container tightly closed
P210	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P273	Avoid release to the environment.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P302/352	IF ON SKIN: Wash with plenty of water and non-abrasive soap.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331	Do NOT induce vomiting.
P362	Take off contaminated clothing and wash before reuse.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up
P391	Collect spillage
P501	Dispose of contents/container in accordance with local/regional/ national regulations

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Other hazards: None known

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients:

Substance name (IUPAC)	CAS Number.	Concentration % by weight	Classification EC1272/2008
Fluazifop-p-butyl tech (87%)	79241-46-6	12.9%	Reproduction Toxicity (Category 2) H361f Aquatic Acute (Category 1)H400 Aquatic Chronic (Category 1) H410
Dimethyl benzene	1330-20-7	<75%	Flammable liquids (Category 3), H226 Acute toxicity, Inhalation (Category 4), H332 Acute toxicity, Dermal (Category 4), H312 Skin irritation (Category 2), H315 Eye irritation (Category 2), H319 STOT SE (Category 3), Respiratory system, H335 STOT SE (Category 3) CNS, H336 STOT RE (Category 2), H373 Aspiration hazard (Category 1), H304 Aquatic chronic (Category 3), H412

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES

Description of first aid measures:

In case of inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

In case of skin contact: In case of contact, Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Obtain medical attention if irritation persists.

In case of eye contact: Flush eyes with clean water for at least 15 – 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical attention immediately.

In case of ingestion Get medical attention immediately. Call a poison center or physician. Rinse mouth with water. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms and effects, both acute and delayed:

Ingestions: May be fatal if swallowed and enters airways. Aspiration may cause pulmonary oedema and pneumonitis.

Skin contact: May cause skin irritation.

Eye contact: May cause eye irritation

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically. Do not induce vomiting.

SECTION 5. FIRE FIGHTING MEASURES

Extinguisher media:

Doc no: H-SDS-8

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Suitable extinguisher media: Foam. Dry powder. Carbon dioxide. Water spray.

Unsuitable extinguishing media: Do not use high volume water jet, due to contamination risk.

Specific hazards arising from the mixture:

Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous decomposition products in case of fire: Refer to Section 10: Stability and Reactivity.

Advice for fire-fighters:

Avoid inhaling hazardous vapours. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent.

Contain fire control agents for later disposal according to Section 13.

Water can be used to cool unaffected containers.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment, and emergency procedures:

Personal precautions: Avoid contact with eyes and skin. Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours.

Ensure adequate ventilation. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking.

For emergency responders: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent. Avoid contact with eyes and skin. Do not breathe in fumes. Refer to section 8 for recommended personal protective equipment. Evacuate unnecessary personnel.

Environmental precautions:

Stop leak if without risk. Do not touch spilled material. Use a light water spray to reduce vapours.

Prevent entry into drains, watercourses, or confined areas; dike if needed.

If the product contaminates public water, inform appropriate authorities immediately in accordance with local regulations.

Dispose in a safe manner in accordance with local/national regulations.

Methods for containment and cleaning up:

For small spills Contain spilled material if possible. Collect in suitable and properly labelled containers. Absorb with materials such as: sand, earth, vermiculite, or diatomaceous earth

For large spills Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements, or confined areas. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product

Reference to other sections:

See Section 1 for emergency contact information

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See section 13 for information on disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid contact with eyes and skin. Use with adequate ventilation. Take precautionary measures against static

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discharges. Use only in an area containing flame proof equipment. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

Protective measures: Observe directions on label and instructions for use.

Advice on general occupational hygiene: Do not eat drink or smoke when handling this product.

Conditions for safe storage, including incompatibilities:

Store product in a segregated and approved area. Keep away from heat & sources of ignition. Keep away from combustible material. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use.

Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Acceptable Daily Intake (ADI): No data available

Exposure Limits: No data available

Exposure control:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. A Risk Assessment should be conducted before handling is to commence to determine specific exposure control.

Appropriate engineering controls: Use outdoors in a well-ventilated area. Provide exhaust ventilation or other engineering controls. Ensure that eyewashstations and safety showers are proximal to the work-station location.

Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Avoid contact with eyes. Wear a full-face shield when handling the product or spraying. The use of safety glasses with side shields (or goggles) are recommended if a face shield is not used.

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: Appropriate impervious clothing is required to prevent skin contact with the product.

Respiratory protection: Use only in well ventilated areas. Use an approved vapour respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible.

Environmental exposure controls: Prevent product from entry into sewers and water courses

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid
Colour	Clear to cloudy white
Odour	No data available
Odour threshold	No data available
pH	6.8
Melting point / freezing point (°C)	No data available
Boiling point (°C)	No data available

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Flash point (°C)	No data available
Evaporation rate	No data available
Flammability	Flammable liquid and vapour
Upper /lower flammability limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Specific Gravity (20°C) g/ml	0.98
Water solubility (g/l) at 20°C	Miscible in water.
Partition coefficient : n-octanol/water	No data available
Auto-ignition temperature (°C)	No data available
Decomposition temperature (°C)	No data available
Viscosity, cps	13
Explosive properties	No data available
Oxidising properties	No data available
Explosive limits	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity: The product is stable under normal conditions.

Chemical stability: Stable under normal storage conditions for 2 years. Avoid excessive heat sources. Store at low temperature conditions, preferably below 30 °C and not for prolonged periods in direct sunlight.

Possibility of hazardous reactions: Hazardous Polymerisation will not occur.

Conditions to avoid: Heat, sparks, open flames, hot surfaces and direct sunlight.

Incompatible materials: Strong oxidising agents.

Hazardous decomposition products: Oxides of carbon, nitrogen, nitrogen oxides, other nitrogen compounds, hydrogen cyanide, hydrogen fluoride, other fluorine compounds, smoke and water

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution: No data available

Information on toxicological effects:

Assessment of acute toxicity:

The product has not been tested. The data reported is for the main ingredients in the mixture.

Fluazifop-p-butyl tech CAS No. 79241-46-6	
Acute toxicity:	
Acute Oral LD50 (rat - male)	2451 mg/kg
Acute Dermal LD50 (rat):	>2000 mg/kg
Acute Inhalation LC50 - 4 h (rat)	>5.24 mg/l
Skin irritation/ corrosion (rabbits)	Mild skin irritant
Eye damage / irritation (rabbits)	Mild eye irritant
Respiratory or skin sensitization (Guinea pig)	Not a skin sensitizer
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	Suspected of damaging fertility or the unborn child
Specific Target Organ Toxicity STOT single exposure	No data available
Specific Target Organ Toxicity STOT repeated exposure	No data available
Aspiration hazard	No data available

Additional Information:

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

Dimethyl benzene CAS No. 1330-20-7	
Acute toxicity:	
Acute Oral LD50 (rat - male)	3523-4000 mg/kg
Acute Dermal LD50 (rabbit):	1700 mg/kg
Acute Inhalation LC50 - 4 h (rat)	29.09 mg/l
Skin irritation/ corrosion (rabbits)	Moderate skin irritation - 24 h
Eye damage / irritation (rabbits)	Causes serious eye irritation. - 24 h
Respiratory or skin sensitization Sensitisation: Local lymph node assay (LLNA) - Mouse	Negative
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific Target Organ Toxicity STOT single exposure	May cause respiratory irritation. - Respiratory system system.
Specific Target Organ Toxicity STOT repeated exposure	Inhalation - May cause damage to organs through prolonged or repeated exposure. - Central nervous system, Liver, Kidney
Aspiration hazard	May be fatal if swallowed and enters airways.

Additional Information:

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

SECTION 12. ECOLOGICAL INFORMATION

Fluazifop-p-butyl tech CAS No. 79241-46-6	
Toxicity	
Birds Acute oral LD ₅₀ (9-11d)	>3500 mg/kg Mallard ducks
Aquatic Toxicity Fish LC ₅₀ (96 hr)	1.3mg/l (rainbow trout)
Aquatic Toxicity Daphnia EC ₅₀ (48 hr)	>1.0 mg/l
Algae EC ₅₀ (72h)	0.51 mg/l
Bee Toxicity LC ₅₀	>0.2 mg/ bee (oral and contact) Very low toxicity to bees
Persistence and degradability	Low persistence in soils. Half-life in soil is less than 1 week.
Bioaccumulation potential	No data available
Mobility in soil	Low mobility in soils.

Dimethyl benzene CAS No. 1330-20-7	
Toxicity	
Aquatic Toxicity Fish LC ₅₀ static test (96 hr)	2.60 mg/l Oncorhynchus mykiss (rainbow trout)
Aquatic Toxicity Daphnia semi static EC ₅₀ (96 hr)	No data available
Toxicity to algae – static test EC50 (73 hr)	4.36 mg/l Pseudokirchneriella subcapitata (green algae)
Toxicity to bacteria static test IC50 (3h)	No data available
Persistence and degradability	
Biodegradability-aerobic 28 days	94 % - Readily biodegradable.
Bioaccumulation potential	
Bioaccumulation 56 days @ 10 °C	1.3 mg/l (Xylene) - Oncorhynchus mykiss (rainbow trout) - Bioconcentration factor (BCF): 7.4 - 18.5
Mobility in Soil	No data available

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Result of PBT and vPvB assessment	No data available
Other adverse effects	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Product:

Keep out of drains, sewers, ditches, and waterways. Open dumping or burning of this pesticide is prohibited.

Waste resulting from the use of this product cannot be re-used or reprocessed. Refer to container label for disposal information. Treat as hazardous waste and dispose of in accordance with local/ regional/ national/ international regulations.

Container:

Refer to container label for disposal information. Emptied containers retain vapour and product residues.

Observe all labelled safeguards until container is cleaned, reconditioned, or destroyed. Rinse empty container three times with a volume of water equal to at least one tenth of that of the container. Pour rinse water into spray tank

Dispose of as hazardous waste. Do not contaminate water when disposing of rinse water. Dispose of using an approved waste disposal service provider.

Follow all local/ regional/ national/ international regulations.

SECTION 14. TRANSPORT INFORMATION

UN Number	1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (Fluazifop-P-butyl 125 g/l)
Transport hazard class	3
Packaging group	III
Marine pollutant	Yes

SECTION 15. REGULATORY INFORMATION

Safety, health, and environmental regulations/legislation for the mixture:

Relevant information regarding authorization: Occupational Health and Safety Act 1993. Regulation for Hazardous Chemical Agents, 2021. UN Recommendations on the Transport of Dangerous Goods Model Regulations Rev. 21 (2019), Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Rev 8, 2019.

Relevant information regarding restrictions:

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP]

Other National regulations:

National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes.

National Environmental Management Waste Act 59 of 2008.

Act 36 of 1947 of the Republic of South Africa. This product is registered under it is a violation of South African law to use this product in any manner inconsistent with its approved labelling. Read and follow all label directions

Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

Indication of changes:

Classification according to SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]

GHS aligned – all sections

Relevant H statements (number and full text):

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H332-Harmful if inhaled

H312-Harmful in contact with skin

H400-Very toxic to aquatic life

H410-Very toxic to aquatic life with long lasting effects

H412-Harmful to aquatic life with long lasting effects

Aspiration toxicity (Category 1): May be fatal if swallowed and enters airways

Eye damage (Category 1): Causes serious eye damage

Skin irritation (Category 2): Causes skin irritation

STOT SE 3 H335- Specific Target Organ Toxicity single exposure (Category 3), Respiratory system

STOT SE 3 H336 - Specific Target Organ Toxicity single exposure (Category 3), Central nervous system

STOT RE 2 H373-Specific Target Organ Toxicity repeated exposure (Category 2), Respiratory system, Central nervous system, Liver, Kidney

Flammable liquid (Category 3): Flammable liquid and vapour.

Aquatic acute toxicity (Category 1): Very toxic to aquatic life

Aquatic chronic toxicity (Category 1): Very toxic to aquatic life with long lasting effects

Training instructions:

Use as indicated on the label, special training may be required for application.

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product, nor where instructions or recommendations are not followed.