

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY OR UNDERTAKING

IDENTIFICATION OF THE SUBSTANCE OR PREPARATION

Tradenam e **FUSILADE MAX**
 Design Code **A12791B**
 AGI Code **20323**

COMPANY IDENTIFICATION

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2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS

CAS-NO.	EC-NO.	CHEMICAL NAME	CONCENTRATION (% W/W)	HAZARD SYMBOLS	RISK PHRASES (R)
79241-46-6	–	fluazifop-p-butyl	13	Xn, N	63, 50/53
	–	blend of fatty alcohols and their ethoxylates	50–60	Xi	38
111-87-5	203-917-6	1-octanol	0–5	Xi	36
26264-06-02	247-557-8	benzenesulphonic acid, dodecyl-, calcium salt	0–5	Xi	10, 37/38, 41, 67

For the full text of the R phrases mentioned in this section, see section 16.

3. HAZARDS IDENTIFICATION

Suspected of damaging the unborn child. Causes mild skin irritation. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

General advice: Have the product container, label or Material Safety Data Sheet with you when calling the Syngenta emergency number, a Poison Control Centre or physician, or going for treatment.

Inhalation: Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or Poison Control Centre immediately.

Skin contact: Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

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

HERBICIDE

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting.

Medical advice: There is no specific antidote available. Treat symptomatically.

5. FIRE FIGHTING MEASURES

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

Suitable extinguishing media – large fires: Alcohol-resistant foam water spray.

Extinguishing media which must not be used for safety reasons: Do not use a solid water stream as it may scatter and spread fire.

Specific hazards during fire fighting: As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Exposure to decomposition products may be a hazard to health.

Special protective equipment for fire fighters: Wear full protective clothing and wear self-contained breathing apparatus.

Further information: Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Refer to protective measures listed in sections 7 and 8.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up: Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see section 13).

Additional advice: If the product contaminates rivers and lakes or drains inform respective authorities.

7. HANDLING AND STORAGE

HANDLING

Advice on safe handling: No special protective measures against fire required. Avoid contact with skin and eyes. When using do not eat, drink or smoke. For personal protection see section 8.

STORAGE

Requirements for storage areas and containers: No special storage conditions required. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feed.

Other data: Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

Components	Exposure limit(s)	Value type	Source
fluazifop-p-butyl	0.5 mg/m ³	8 h TWA	SYNGENTA

ENGINEERING MEASURES

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. If airborne mists or vapours are generated, use local exhaust ventilation controls. Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit. Where necessary, seek additional occupational hygiene advice.

PERSONAL PROTECTIVE EQUIPMENT

When using this product refer to the label for details. In all other cases, use the following Personal Protective Equipment:

Protective measures: The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.

Respiratory protection: A combination gas, vapour and particulate respirator may be necessary until effective technical measures are installed. Protection provided by air-purifying respirators is limited. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

Hand protection: Chemical resistant gloves should be used. Gloves should be certified to an appropriate standard. Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure. The breakthrough time of gloves varies according to the thickness, material and manufacturer. Gloves should be changed when breakthrough is suspected. Suitable material: nitrile rubber.

Eye protection: Eye protection is not usually required. Follow any site specific eye protection policies. Eye/face protection should be certified to EN 166.

Skin and body protection: Assess the exposure and select chemical resistant clothing based on the potential for contact and the permeation/penetration characteristics of the clothing material. Wash with soap and water after removing protective clothing. Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots, etc.). Wear as appropriate: impervious protective suit.

9. PHYSICAL AND CHEMICAL PROPERTIES

Colour:	Brown.
Form:	Liquid, clear to slightly turbid.
Flash-Point:	89°C Setaflash closed cup and Abel-Pensky c.c.
Odour:	Like alcohol, weak.
Oxidising Properties:	Not oxidising.
Explosive Properties:	Not explosive.
Density:	0.935 g/ml at 20°C.
pH Value:	6.6 (1% w/v at 25°C).
Surface Tension:	33.6 mN/m at 23.5°C.

H E R B I C I D E

Water Solubility: Miscible.
Kinematic Viscosity: 54.2 cSt at 20°C.

10. STABILITY AND REACTIVITY

Hazardous decomposition products: Combustion or thermal decomposition will evolve toxic and irritant vapours.

Hazardous reactions: None known. Hazardous polymerisation does not occur. Stable under normal conditions.

11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity LD₅₀: >2000 mg/kg (rat).

Acute Dermal Toxicity LD₅₀: 2000 mg/kg (rat)

Skin Irritation: Irritant (rabbit)

Eye Irritation: Slight (rabbit)

Sensitisation: Slightly sensitising (guinea pig)

LONG-TERM TOXICITY

Did not show mutagenic effects in animal experiments. Did not show carcinogenic effects in animal experiments. Embryo/foetotoxic effects have been reported in rats. Did not show teratogenic effects in animal experiments. This is not considered to be a risk to man when handled and used as directed on the label.

12. ECOLOGICAL INFORMATION

ELIMINATION INFORMATION (PERSISTENCE AND DEGRADABILITY)

Bioaccumulation: Fluazifop-p-butyl does not bioaccumulate.

Stability in water: Fluazifop-p-butyl is not persistent in water.

Stability in soil: Fluazifop-p-butyl has low persistence in soil.

Mobility: Fluazifop-p-butyl is immobile in soil.

ECOTOXICITY

Toxicity to Fish LC₅₀: 20 mg/l (*Oncorhynchus mykiss* (rainbow trout); 96 h)

Toxicity to Algae EbC₅₀: 230 µg/l (*Pseudokirchneriella subcapitata* (green algae); 72 h)

Toxicity to Algae ErC₅₀: 840 µg/l (*Pseudokirchneriella subcapitata* (green algae); 72 h)

Toxicity to Aquatic Invertebrates EC₅₀: 20 mg/l (*Daphnia magna* (water flea); 48 h)

13. DISPOSAL CONSIDERATIONS

Product: Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging: Empty remaining contents. Triple rinse containers. Empty containers should be taken for local recycling or waste disposal. Do not re-use empty containers.

14. TRANSPORT INFORMATION

RAIL/ROAD/SEA/AIR (RID/ADR/IMDG/IATA)	Class	UN No.	Packaging Group
	9	3082	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (FLUAZIFOP-P-BUTYL)		
Marine pollutant:	Yes		

15. REGULATORY INFORMATION

Hazard symbols/ Classifications	N Xn	DANGEROUS FOR THE ENVIRONMENT HARMFUL
Risk phrases (R)	38 50/53 63	Irritating to skin. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible risk of harm to the unborn child.
Safety phrases (S)	2 13 20/21 35 36/37 57	Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. This material and its container must be disposed of in a safe way. Wear suitable protective clothing and gloves. Use appropriate containment to avoid environmental contamination.
Special label		To avoid risks to man and the environment, comply with the instructions for use.

Note: The preparation is classified as dangerous in accordance with Directive 1999/45/EC.

HERBICIDE

16. OTHER INFORMATION

Always read the label. Use pesticides safely.

Based upon SDS date of issue: 21/10/2009, version 8 with local assessments.

Updated Respiratory Protection in section 8. New flash point test method in section 9 and minor change to terms in section 11.

Product Approval Number: MAPP 11519.

Text of R phrases mentioned in Section 2:

R10 Flammable.

R36 Irritating to eyes.

R37/38 Irritating to respiratory system and skin.

R38 Irritating to skin.

R41 Risk of serious damage to eyes.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R63 Possible risk of harm to the unborn child.

R67 Vapours may cause drowsiness and dizziness.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.