

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

CA Code (Nufarm)	: 2157
Oracle Recipe Code (Nufarm)	: 610000247
Item codes	: 100013036
Product form	: Mixture
Trade name	: FUSILADE MAX
Type (Nufarm)	: Country Specific
Country (Nufarm)	: United Kingdom

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

##### 1.2.1. Relevant identified uses

Main use category	: Professional use
Use of the substance/mixture	: Herbicide

##### 1.2.2. Uses advised against

No additional information available

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

##### Manufacturer

Nufarm UK Limited  
Wyke Lane  
Wyke  
BD12 9EJ Bradford - UK  
T +44 (0)1274 691234 - F +44 (0) 1274691176  
[infouk@uk.nufarm.com](mailto:infouk@uk.nufarm.com)

#### 1.4. Emergency telephone number

Emergency number : +44 (0)1274 696603

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Reproductive toxicity, Category 2	H361d
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400
Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411

Full text of hazard classes and H-statements : see section 16

##### Adverse physicochemical, human health and environmental effects

Suspected of damaging the unborn child. Very toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS08

GHS09

Signal word (CLP) :

Warning

Hazardous ingredients :

Fluazifop-p-butyl

Hazard statements (CLP) :

H361d - Suspected of damaging the unborn child.  
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) :

P102 - Keep out of reach of children.  
P201 - Obtain special instructions before use.  
P280 - Wear protective clothing, protective gloves.  
P308+P313 - IF exposed or concerned: Get medical advice/attention.  
P391 - Collect spillage.  
P501 - Dispose of contents and container to hazardous or special waste collection point, in

# FUSILADE MAX

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

EUH-statements : accordance with local, regional, national and/or international regulation.  
: EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.  
EUH208 - Contains fluazifop-P-butyl (ISO); butyl (R)-2-[4-(5-trifluoromethyl-2-pyridyloxy)phenoxy]propionate. May produce an allergic reaction.

### 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
POLY(OXY-1,2 ETHANEDIYL), ALPHA-9-OCTADECYNYL-OMEGA-HYDROXY-, (Z)	(CAS-No.) 68920-66-1	20-30	Skin Irrit. 2, H315
Octan-1-ol	(CAS-No.) 111-87-5 (EC-No.) 203-917-6 (REACH-no) 01-2119486978-10	5-15	Eye Irrit. 2, H319 Aquatic Chronic 3, H412
Fluazifop-p-butyl	(CAS-No.) 79241-46-6	13.4	Skin Sens. 1, H317 Repr. 2, H361d Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Calcium dodecylsulphonate	(CAS-No.) 26264-06-2; 90194-26-6 (EC-No.) 247-557-8	1-5	Skin Irrit. 2, H315 Eye Dam. 1, H318
2-methylpropan-1-ol; iso-butanol	(CAS-No.) 78-83-1 (EC-No.) 201-148-0 (EC Index-No.) 603-108-00-1 (REACH-no) 1-2119484609-23	1-5	Flam. Liq. 3, H226 STOT SE 3, H335 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H336

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention. See material safety data sheet.  
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. If experiencing respiratory symptoms: Call a poison center or a doctor.  
First-aid measures after skin contact : Take off contaminated clothing and wash it before reuse. Wash skin with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.  
First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.  
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell. Do not induce vomiting.

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

Symptoms/effects after skin contact : May cause an allergic skin reaction.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.  
Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

# FUSILADE MAX

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing mist.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

Maximum storage period : 2 year

Information on mixed storage : Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

Special rules on packaging : Keep only in original container. Store in a closed container.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Fluazifop-p-butyl (79241-46-6)		
EU	Notes	8 h TWA: 0.5 mg/m <sup>3</sup> (Nufarm)
2-methylpropan-1-ol; iso-butanol (78-83-1)		
United Kingdom	Local name	2-Methylpropan-1-ol
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	154 mg/m <sup>3</sup>
United Kingdom	WEL TWA (ppm)	50 ppm
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	231 mg/m <sup>3</sup>
United Kingdom	WEL STEL (ppm)	75 ppm
United Kingdom	Regulatory reference	EH40/2005 (Third edition, 2018). HSE

### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### Personal protective equipment:

Protective clothing. Gloves. Safety glasses. Insufficient ventilation: wear respiratory protection.

#### Hand protection:

# FUSILADE MAX

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.5		

### Eye protection:

Safety glasses. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure

### Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection. Local exhaust is needed at source of vapours



### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear to cloudy.
Colour	: brown.
Odour	: mild. alcohol-like.
Odour threshold	: No data available
pH	: 4 - 8
pH solution concentration	: 1 % (20-25°C)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 81 - 89 °C Closed cup
Auto-ignition temperature	: 265 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.939 g/cm <sup>3</sup> (20°C)
Solubility	: Water: Miscible with water
Log Pow	: No data available
Viscosity, kinematic	: 22.3 mm <sup>2</sup> /s (40 °C)
Viscosity, kinematic	: 54.8 m <sup>2</sup> /s (20 °C)
Viscosity, dynamic	: 50.7 mPa.s (20 °C)
Viscosity, dynamic	: 20.6 mPa.s (40 °C)
Explosive properties	: Not explosive.
Oxidising properties	: Non oxidizing material according to EC criteria.
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

# FUSILADE MAX

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Heating can release hazardous gases.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

FUSILADE MAX	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg

Fluazifop-p-butyl (79241-46-6)	
LD50 oral rat	2451 - 3680 mg/kg
LD50 dermal rabbit	> 2110 mg/kg
LC50 inhalation rat (mg/l)	> 5.2 mg/l/4h rat

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 4 - 8
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 4 - 8
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Suspected of damaging the unborn child.
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

FUSILADE MAX	
Viscosity, kinematic	22.3 mm <sup>2</sup> /s (40 °C)

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: Toxic to aquatic life with long lasting effects.
Acute aquatic toxicity	: Very toxic to aquatic life.
Chronic aquatic toxicity	: Toxic to aquatic life with long lasting effects.

FUSILADE MAX	
LC50 96h fish	20 mg/l <i>Oncorhynchus mykiss</i> (Rainbow trout)
EC50 48h crustacea	20 mg/l <i>Daphnia magna</i>
EC50 72h algae	0.672 mg/l <i>Pseudokirchneriella subcapitata</i>

Additional Ecotox information	
EbC50 <i>Pseudokirchneriella subcapitata</i> , 0.184 mg/l , 72 h	

Fluazifop-p-butyl (79241-46-6)	
LC50 96h fish	1.41 mg/l <i>Oncorhynchus mykiss</i> (Rainbow trout)
LC50 96h fish	1.31 mg/l <i>Cyprinus carpio</i> (Common carp)
EC50 48h crustacea	> 0.62 mg/l <i>Daphnia magna</i>
EC50 other aquatic organisms 1	0.54 mg/l <i>Americamysis bahia</i> ; 96h
EC50 72h algae	1.4 mg/l <i>Navicula pelliculosa</i>

# FUSILADE MAX

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Fluazifop-p-butyl (79241-46-6)	
EC50 96h algae	> 1.8 mg/l <i>Pseudokirchneriella subcapitata</i>
NOEC chronic fish	0.077 mg/l <i>Pimephales promelas</i> ; 32 d
Additional Ecotox information	
NOErC <i>Pseudokirchneriella subcapitata</i> , 1.8 mg/l , 96 h NOErC <i>Navicula pelliculosa</i> , 0.34 mg/l , 72 h	

### Octan-1-ol (111-87-5)

Additional Ecotox information

### Calcium dodecylsulphonate (26264-06-2; 90194-26-6)

Additional Ecotox information

### POLY(OXY-1,2 ETHANEDIYL), ALPHA-9-OCTADECYNYL-OMEGA-HYDROXY-, (Z) (68920-66-1)

Additional Ecotox information

### 2-methylpropan-1-ol; iso-butanol (78-83-1)

Additional Ecotox information

## 12.2. Persistence and degradability

### Fluazifop-p-butyl (79241-46-6)

Persistence and degradability	Not readily biodegradable.
Biodegradation	DT50(water) 1.5-1.7h; DT50(soil) <2d

## 12.3. Bioaccumulative potential

### Fluazifop-p-butyl (79241-46-6)

Log Pow	> 5.3 (25°C)
Bioaccumulative potential	No bioaccumulation.

## 12.4. Mobility in soil

### FUSILADE MAX

Surface tension	31.5 mN/m (25 °C)
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### Fluazifop-p-butyl (79241-46-6)

Mobility in soil	Adsorbs into the soil
Surface tension	66.1 mN/m (20°C)

## 12.5. Results of PBT and vPvB assessment

### FUSILADE MAX

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

## 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA
<b>14.1. UN number</b>		
3082	3082	3082
<b>14.2. UN proper shipping name</b>		
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FLUAZIFOP-P-BUTYL)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FLUAZIFOP-P-BUTYL)	Environmentally hazardous substance, liquid, n.o.s. (FLUAZIFOP-P-BUTYL)
<b>Transport document description</b>		
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FLUAZIFOP-P-BUTYL), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FLUAZIFOP-P-BUTYL), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (FLUAZIFOP-P-BUTYL), 9, III
<b>14.3. Transport hazard class(es)</b>		
9	9	9

# FUSILADE MAX

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

ADR	IMDG	IATA
<b>14.4. Packing group</b>		
III	III	III
<b>14.5. Environmental hazards</b>		
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes
No supplementary information available		

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR)	: M6
Special provisions (ADR)	: 274, 335, 375, 601
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Special packing provisions (ADR)	: PP1
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T4
Portable tank and bulk container special provisions (ADR)	: TP1, TP29
Tank code (ADR)	: LGBV
Vehicle for tank carriage	: AT
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13
Hazard identification number (Kemler No.)	: 90
Orange plates	:
Tunnel restriction code (ADR)	: -
EAC code	: •3Z

#### - Transport by sea

Special provisions (IMDG)	: 274, 335, 969
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP2, TP29
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-F
Stowage category (IMDG)	: A

#### - Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y964
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L

# FUSILADE MAX

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

CAO packing instructions (IATA)	: 964
CAO max net quantity (IATA)	: 450L
Special provisions (IATA)	: A97, A158, A197
ERG code (IATA)	: 9L

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Full text of H- and EUH-statements:

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains . May produce an allergic reaction.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

NUFARM SDS TEMPLATE

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*