



## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**Butryflow**

Version 1 (UK)

Issuing date: 2014/01/10

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Trade name : **Butryflow**

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

Use : Herbicide

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

Nufarm UK Limited  
Wyke Lane  
Wyke  
Bradford  
West Yorkshire BD12 9EJ  
United Kingdom  
Telephone: +44 (0)1274 691234  
Telefax: +44 (0)1274 691176  
E-mail address: infouk@uk.nufarm.com

#### 1.4. Emergency telephone number

**+44 (0)1274 696603**

### 2. HAZARDS IDENTIFICATION

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

EEC/99/45 :	Xn	R20/22 - Harmful by inhalation and if swallowed.
	Xi	R43 - May cause sensitization by skin contact.
	Xn	R63 - Possible risk of harm to the unborn child.
	N	R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
EG_1272/08 :	AcuteTox.4	H302 - Harmful if swallowed.
	AcuteTox.4	H332 - Harmful if inhaled.
	SkinSens.1	H317 - May cause an allergic skin reaction.
	Repr.Cat.2	H361d - Suspected of damaging the unborn child.
	AquaticChronic1	H410 - Very toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

according directive 1999/45/EG

Pictogram:



Xn



N

- R20/22 - Harmful by inhalation and if swallowed.  
 R43 - May cause sensitization by skin contact.  
 R63 - Possible risk of harm to the unborn child.  
 R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- S35 - This material and its container must be disposed of in a safe way.  
 S36/37 - Wear suitable protective clothing and gloves.  
 S57 - Use appropriate container to avoid environmental contamination.  
 S 2 - Keep out of the reach of children.  
 S13 - Keep away from food, drink and animal feedingstuffs.  
 SP 1 - Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

REGULATION (EC) No 1272/2008

Pictogram:



GHS07



GHS08



GHS09

Signal word: Warning

- H302 - Harmful if swallowed.  
 H317 - May cause an allergic skin reaction.  
 H332 - Harmful if inhaled.  
 H361d - Suspected of damaging the unborn child.  
 H410 - Very toxic to aquatic life with long lasting effects.
- P261 - Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
 P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.  
 P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.  
 P501 - Dispose of contents/ container to a licensed hazardous-waste disposal contractor



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according to Regulation (EC) No. 1907/2006

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or collection site except for empty clean containers which can be disposed of as non hazardous waste.

### 2.3. Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical nature** : suspension concentrate (SC)  
401.58 g/L bromoxynil present as a mixture of the butyrate, phenol and octanoate esters

### Components:

#### Bromoxynil butyrate

CAS-No.: 3861-41-4  
EINECS-No. / ELINCS No.: 223-374-9  
REACH No.:  
Concentration: 25% - 50% (w/w)

#### Classification:

EG_1272/08 :	AcuteTox.4	H332 - Harmful if inhaled.
	AcuteTox.3	H301 - Toxic if swallowed.
	SkinSens.1	H317 - May cause an allergic skin reaction.
	AquaticAcute1	H400 - Very toxic to aquatic life.
	AquaticChronic1	H410 - Very toxic to aquatic life with long lasting effects.
	Repr.Cat.3	H361 - Suspected of damaging fertility or the unborn child.
EEC/67/548 :	Xn	R20 - Harmful by inhalation.
	T	R25 - Toxic if swallowed.
	-	R43 - May cause sensitization by skin contact.
	N	R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
	Repr.Cat.3	R63 - Possible risk of harm to the unborn child.

#### Bromoxynil octanoate

CAS-No.: 1689-99-2  
EINECS-No. / ELINCS No.: 216-885-3  
REACH No.:  
Concentration: 1.0 % (w/w)

#### Classification:

EG_1272/08 :	Repr.Cat.2	H361f - Suspected of damaging fertility.
	AcuteTox.3	H331 - Toxic if inhaled.
	AcuteTox.4	H302 - Harmful if swallowed.
	SkinSens.1	H317 - May cause an allergic skin reaction.
	AquaticAcute1	H400 - Very toxic to aquatic life.
	AquaticChronic1	H410 - Very toxic to aquatic life with long lasting effects.
	Repr.Cat.3	R63 - Possible risk of harm to the unborn child.
EEC/67/548 :	T	R23 - Toxic by inhalation.
	Xn	R22 - Harmful if swallowed.
		R43 - May cause sensitization by skin contact.
	N	R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.



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**Butryflow**

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Issuing date: 2014/01/10

### Bromoxynil

CAS-No.: 1689-84-5  
EINECS-No. / ELINCS No.: 216-882-7  
REACH No.:  
Concentration: 1.0 % (w/w)

### Classification:

EG_1272/08 :	Repr.Cat.2	H361 - Suspected of damaging fertility or the unborn child.
	AcuteTox.2	H330 - Fatal if inhaled.
	AcuteTox.3	H301 - Toxic if swallowed.
	SkinSens.1	H317 - May cause an allergic skin reaction.
	AquaticAcute1	H400 - Very toxic to aquatic life.
	AquaticChronic1	H410 - Very toxic to aquatic life with long lasting effects.
EEC/67/548 :	Repr.Cat.3	R63 - Possible risk of harm to the unborn child.
	T+	R26 - Very toxic by inhalation.
	T	R25 - Toxic if swallowed.
		R43 - May cause sensitization by skin contact.
	N	R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

Eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

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

Inhalation : Move to fresh air. If symptoms persist, call a physician.

Ingestion : Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician.

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

Symptoms : No information available.

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

Treatment : Treat symptomatically.

## 5. FIREFIGHTING MEASURES

### 5.1. Extinguishing media

Suitable extinguishing : Water spray, Dry powder, Foam, Carbon dioxide (CO<sub>2</sub>)



## SAFETY DATA SHEET

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media

Extinguishing media which shall not be used for safety reasons : High volume water jet

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

Specific hazards during firefighting : In the event of fire (HBr,Br<sub>2</sub>,NO<sub>x</sub>,CO) may be formed.

### 5.3. Advice for firefighters

Special protective equipment for firefighters : Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.

Further Information : Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

## 6. ACCIDENTAL RELEASE MEASURES

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

Use personal protective equipment. (see Chapter 8)

### 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

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

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Shovel or sweep up.

Additional advice : Never return spills in original containers for re-use.

### 6.4. Reference to other sections

see Chapter 13

## 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Safe handling advice : Keep out of reach of children. Wear personal protective equipment.



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

Requirements for storage areas and containers : Keep away from humidity. Store at room temperature in the original container.

Advice on common storage : Keep away from food, drink and animal feeding stuffs.

### Storage stability

Storage temperature : > 0 °C

## 7.3. Specific end use(s)

none

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Components with workplace control parameters  
(EH40/2005 Workplace exposure limits)

Components	CAS-No.	National occupational exposure limits	Note
Bromoxynil butyrate	3861-41-4		no classification available, not listed in EH40/2005
Bromoxynil octanoate	1689-99-2		no classification available, not listed in EH40/2005
Bromoxynil	1689-84-5		no classification available, not listed in EH40/2005

### 8.2. Exposure controls

#### Personal protective equipment

Respiratory protection : No special protective equipment required.

Hand protection : PVC or nitrile-rubber gloves

Eye protection : Safety glasses, , or:, Goggles

Skin and body protection : protective suit

Hygiene measures : Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands and face before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice for diagnostics.

Protective measures : No special protective equipment required.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

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

#### Appearance

Physical state	:	liquid at 20 °C ,
Colour	:	beige
Density	:	ca.1.2 g/cm <sup>3</sup>
pH	:	3.9

### 9.2. Other information

none

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

no data available

### 10.2. Chemical stability

No decomposition if stored and applied as directed.

### 10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

### 10.4. Conditions to avoid

Extremes of temperature and direct sunlight.

### 10.5. Incompatible materials to avoid

Strong acids and strong bases

### 10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.



## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

Acute oral toxicity	:	LD50 rat Dose: < 2,000 mg/kg
Acute dermal toxicity	:	LD50 rabbit Dose: > 2,000 mg/kg
Acute inhalation toxicity	:	LC50 rat Dose: > 1.25 mg/l
Skin irritation	:	rabbit Classification: No skin irritation Result: No skin irritation
Eye irritation	:	rabbit Classification: No eye irritation Result: No eye irritation
Sensitisation	:	no data available Guinea-pig Classification: May cause sensitization by skin contact. Result: Did cause sensitization on laboratory animals.

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

Toxicity to fish	:	LC50 <i>Oncorhynchus mykiss</i> (rainbow trout) Dose: 0.0322 mg/l Testing period: 96 h Test substance: (Bromoxynil butyrate)
Toxicity to daphnia	:	EC50 <i>Daphnia</i> Dose: 0.208 mg/l Testing period: 48 h Test substance: (Bromoxynil butyrate)





## SAFETY DATA SHEET

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**Butryflow**

Version 1 (UK)

Issuing date: 2014/01/10

Toxicity to algae : EbC50 Toxicity to algae  
Dose: 0.56 mg/l  
Exposure time: 96 h  
Test substance: (Bromoxynil butyrate)

ErC50 Toxicity to algae  
Dose: 0.75 mg/l  
Exposure time: 72 h  
Test substance: (Bromoxynil butyrate)

### 12.2. Persistence and degradability

Biodegradability : no data available

Stability in soil : DT50: < 1 d  
(Bromoxynil)

### 12.3. Potential bioaccumulation

Bioaccumulation : no data available

### 12.4. Mobility in soil

no data available

### 12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

### 12.6. Other adverse effects

none

## 13. DISPOSAL CONSIDERATIONS

According to European Directive 2000/532/EC as amended :

Waste Code : 02 01 08 (agrochemical waste containing dangerous substances)

### 13.1. Waste treatment methods

Product : Dispose of product and packaging in accordance with The Green Code. (The Code of Practice for the safe use of Pesticides on Farms and Holdings.) A MAFF Publication.



Dispose of in accordance with local regulations.

Contaminated packaging : Do not re-use empty containers. Dispose empty and triple rinsed container within a local disposing system

## 14. TRANSPORT INFORMATION

### 14.1. UN number

UN3082

### 14.2. Proper shipping name

UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.\*(Bromoxynil butyrate)

### 14.3. Transport hazard class(es)

ADR/RID :  
Class : 9

IMDG :  
Class : 9

IATA-DGR :  
Class : 9

### 14.4. Packaging group

ADR/RID : III

IMDG : III

IATA-DGR : III

### 14.5. Environmental hazards

**IMDG**  
Marine Pollutant : N

### 14.6. Special precautions for user

none



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### 15. REGULATORY INFORMATION

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

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.

#### 15.2. Chemical Safety Assessment

none

### 16. OTHER INFORMATION

Print Date : 2014/01/10

The date format YYYY/MM/DD is used according to ISO 8601.  
(Alterations are indicated in the left hand margin by: || )

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