



## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**Cyclops**

Version 1 (UK)

Issuing date: 2016/09/06

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

#### 1.1. Product identifier

Trade name : **Cyclops**

#### 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

|              |                 |   |
|--------------|-----------------|---|
| EG_1272/08 : | AcuteTox.4      | H302 - Harmful if swallowed.  |
|              | SkinIrrit.2     | H315 - Causes skin irritation.  |
|              | SkinSens.1      | H317 - May cause an allergic skin reaction.   |
|              | EyeDam.1        | H318 - Causes serious eye damage.   |
|              | AquaticAcute1   | H400 - Very toxic to aquatic life.  |
|              | AquaticChronic1 | H410 - Very toxic to aquatic life with long lasting effects.  |
|              | Repr.2          | H361 - Suspected of damaging fertility or the unborn child.   |
| EEC/99/45 :  | Xn              | R22 - Harmful if swallowed.   |
|              | Xi              | R38 - Irritating to skin.   |
|              | Xi              | R41 - Risk of serious damage to eyes.   |
|              | -               | 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.  |

## 2.2. Label elements

REGULATION (EC) No 1272/2008

Pictogram:



GHS05



GHS07



GHS08



GHS09

Signal word: Danger

- H302 - Harmful if swallowed.
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H318 - Causes serious eye damage.
- H361 - Suspected of damaging fertility or the unborn child.
- H410 - Very toxic to aquatic life with long lasting effects.
- EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.

- P261 - Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- P272 - Contaminated work clothing should not be allowed out of the workplace.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P391 - Collect spillage.
- P501 - Dispose of contents/ container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non hazardous waste.

according directive 1999/45/EG

Pictogram:



Xn



N

- R22 - Harmful if swallowed.
- R38 - Irritating to skin.
- R41 - Risk of serious damage to eyes.
- R43 - May cause sensitization by skin contact.
- 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.

- S 2 - Keep out of the reach of children.
- S13 - Keep away from food, drink and animal feedingstuffs.
- S20/21 - When using do not eat, drink or smoke.
- S24 - Avoid contact with skin.
- S36/37 - Wear suitable protective clothing and gloves.
- S46 - If swallowed, seek medical advice immediately and show this container or label.
- S60 - This material and its container must be disposed of as hazardous waste.
- S61 - Avoid release to the environment. Refer to special instructions/ Safety data sheets.

### 2.3. Other hazards

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

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical nature** : Mixture of active ingredient and additives  
Bromoxynil 240.2 g/l, Diflufenican 27.4 g/l

### 3.2. Mixtures



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## Components:

### Bromoxynil octanoate

CAS-No.: 1689-99-2  
EINECS-No. / ELINCS No.: 216-885-3  
REACH No.:  
Concentration: 23.32 % (w/w)

#### Classification:

EG\_1272/08 : Repr.Cat.2 H361d - Suspected of damaging the unborn child.  
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.  
(M=10) - - -

### Diflufenican

CAS-No.: 83164-33-4  
EINECS-No. / ELINCS No.:  
REACH No.:  
Concentration: 2.66 % (w/w)

#### Classification:

EG\_1272/08 : AquaticChronic3 H412 - Harmful to aquatic life with long lasting effects.

### N,N-Dimethyldecanamide

CAS-No.: 14433-76-2  
EINECS-No. / ELINCS No.: 238-405-1  
REACH No.: 01-2119485027-36  
Concentration: 25% - 50% (w/w)

#### Classification:

EG\_1272/08 : SkinIrrit.2 H315 - Causes skin irritation.  
EyeIrrit.2 H319 - Causes serious eye irritation.  
STOT\_SE3 H335 - May cause respiratory irritation.  
AquaticChronic3 H412 - Harmful to aquatic life with long lasting effects.

## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

- General advice : When symptoms persist or in all cases of doubt seek medical advice.
- Eye contact : Call a physician immediately. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses.
- Skin contact : Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician immediately.
- Inhalation : Move out of dangerous area. Move to fresh air. Seek medical advice.



Ingestion : Do NOT induce vomiting. Rinse mouth with water. If swallowed, seek medical advice immediately and show this container or label.

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

Symptoms : Irritating to eyes., Irritating to skin., Allergic appearance

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

Treatment : No specific antidote, symptomatic treatment.

### 5. FIREFIGHTING MEASURES

#### 5.1. Extinguishing media

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

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., In the event of fire (NO<sub>x</sub>, CO<sub>x</sub>, HF) 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. Prevent product from entering drains.

### 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). Use mechanical handling equipment.

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 : Wear personal protective equipment. Keep out of the reach of children.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

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

Requirements for storage areas and containers : Store in original container. Store in a place accessible by authorized persons only. Keep containers tightly closed in a dry, cool and well-ventilated place.

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

| Components           | CAS-No.   | National occupational exposure limits | Note                        |
|----------------------|-----------|---------------------------------------|-----------------------------|
| Bromoxynil octanoate | 1689-99-2 |                                       | no classification available |



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|                        |            |  |                             |
|------------------------|------------|--|-----------------------------|
| Diflufenican           | 83164-33-4 |  | no classification available |
| N,N-Dimethyldecanamide | 14433-76-2 |  | no classification available |

### 8.2. Exposure controls

#### Personal protective equipment

- Respiratory protection : Suitable respiratory protection for higher concentrations or long-term effect: Combination filter for gases/vapours of organic, inorganic, acid inorganic and alkaline compounds (e.g. EN 14387 Type ABEK).
- Hand protection : Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other
- Eye protection : Safety glasses with side-shields (frame goggles) (e.g. EN 166)
- Skin and body protection : Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).
- Hygiene measures : Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.
- Protective measures : The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

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

##### Appearance

- Physical state : liquid
- Form : liquid
- Colour : brown-oranged
- Odour : odourless
- Melting point/range : no data available
- Boiling point/boiling range : no data available



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|  |   |                                |
|--|---|--------------------------------|
| Flash point                            | : | 140 °C<br>Method: 92/69/EEC A9 |
| Ignition temperature                   | : | 258 °C                         |
| Explosivity                            | : | Not explosive                  |
| Upper explosion limit                  | : | no data available              |
| Lower explosion limit                  | : | no data available              |
| Vapour pressure                        | : | no data available              |
| Density                                | : | 1.03 g/cm <sup>3</sup>         |
| pH                                     | : | 4.5                            |
| Partition coefficient: n-octanol/water | : | no data available              |
| Dissociation constant                  | : | no data available              |
| Viscosity, dynamic                     | : | 8.1 mPa.s<br>Method: OECD 114  |

### 9.2. Other information

none

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

no data available

### 10.2. Chemical stability

Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions





no data available

#### 10.4. Conditions to avoid

none

#### 10.5. Incompatible materials to avoid

none

#### 10.6. Hazardous decomposition products

none

### 11. TOXICOLOGICAL INFORMATION

#### 11.1. Information on toxicological effects

Acute oral toxicity : LD50 rat  
Dose: 1,000 mg/kg

Acute dermal toxicity : LD50 rat  
Dose: > 2,000 mg/kg

Acute inhalation toxicity : LC50  
Exposure time: 4 h  
Remarks: According to the criteria listed in EU regulation 94/79/EC no inhalation toxicity study is needed

Skin irritation : rabbit  
Result: Skin irritation

Eye irritation : rabbit  
Classification: Risk of serious damage to eyes.  
Result: Eye irritation

Sensitisation : Local Lymph Node Assay mouse  
Result: Causes sensitization.

Reproductive toxicity : Repr.Cat.2



## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

- Toxicity to fish : LC50 *Oncorhynchus mykiss* (rainbow trout)  
Dose: 0.307 mg/l  
Testing period: 96 h
- Toxicity to daphnia : EC50 *Daphnia magna* (Water flea)  
Dose: 0.297 mg/l  
Testing period: 48 h
- Toxicity to algae : LC50 *Desmodesmus subspicatus* (green algae)  
Dose: > 0.0093 mg/l  
Exposure time: 72 h
- EC50 *Lemna gibba* (Duckweed)  
Dose: 0.141 mg/l  
Exposure time: 7 d

### 12.2. Persistence and degradability

- Biodegradability : no data available

### 12.3. Potential bioaccumulation

- Bioaccumulation : no data available

### 12.4. Mobility in soil

- K<sub>foc</sub> = 1622 - 4428 mL/g; 1/n= 0.875 - 0.991 (Diflufenican)

### 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 :



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

### 13.1. Waste treatment methods

Product : In accordance with local and national regulations.

Dispose of product and packaging in accordance with the "Code of practice for using plant protection products". A DEFRA publication

Contaminated packaging : Do not re-use empty containers.

Dispose empty and triple rinsed container within a local disposing system according to EC directive 94/62/EC

## 14. TRANSPORT INFORMATION

### 14.1. UN number

UN3082

### 14.2. Proper shipping name

UN3082 Environmentally hazardous substance, liquid, n.o.s.(Bromoxynil octanoate, Diflufenican)

### 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



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IATA-DGR : III

#### 14.5. Environmental hazards

**IMDG**

Marine Pollutant : MP

#### 14.6. Special precautions for user

none

### 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 : 2016/09/06

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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