

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## TRAXOS

Version 10.0      Revision Date: 07.08.2018      SDS Number: S1290692654      This version replaces all previous versions.

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

#### 1.1 Product identifier

Trade name : TRAXOS  
Design code : A13833B  
Product Registration Number : MAPP 12742

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

Use of the Sub-stance/Mixture : Herbicide

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

Company : Syngenta UK Limited  
CPC4, Capital Park  
Fulbourn, Cambridge CB21 5XE  
United Kingdom  
  
Telephone : +44 (0) 1223 883400  
  
Telefax : +44 (0) 1223 882195  
  
E-mail address of person responsible for the SDS : customer.services@syngenta.com

#### 1.4 Emergency telephone number

Emergency telephone number : +44 1484 538444

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Eye irritation, Category 2	H319: Causes serious eye irritation.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Reproductive toxicity, Category 1B	H360Df: May damage the unborn child. Suspected of damaging fertility.
Aspiration hazard, Category 1	H304: May be fatal if swallowed and enters airways.

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Long-term (chronic) aquatic hazard, Category 2      H411: Toxic to aquatic life with long lasting effects.

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H304 May be fatal if swallowed and enters airways.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H360Df May damage the unborn child. Suspected of damaging fertility.  
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements : P102 Keep out of reach of children.

#### Prevention:

P201 Obtain special instructions before use.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

#### Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P331 Do NOT induce vomiting.  
P391 Collect spillage.

#### Disposal:

P501 Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty triple rinsed clean containers which can be disposed of as non-hazardous waste.

#### Additional Labelling

Restricted to professional users.

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

##### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified	64742-94-5 265-198-5 649-424-00-3 01-2119451151-53	Asp. Tox. 1; H304 Aquatic Chronic 2; H411	>= 50 - < 70
tetrahydro-2-furylmethanol	97-99-4 202-625-6 603-061-00-7 01-2119968921-26	Eye Irrit. 2; H319 Repr. 1B; H360Df	>= 20 - < 30
clodinafop-propargyl (ISO)	105512-06-9 607-625-00-3	Acute Tox. 4; H302 Skin Sens. 1; H317 STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 2.5 - < 10
pinoxaden	243973-20-8	Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1A; H317 STOT SE 3; H335 Aquatic Chronic 3; H412	>= 2.5 - < 10
cloquintocet-mexyl	99607-70-2 01-2119381871-32	Acute Tox. 4; H332 Skin Sens. 1; H317 STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 1 - < 2.5
naphthalene	91-20-3 202-049-5 601-052-00-2	Flam. Sol. 2; H228 Acute Tox. 4; H302 Carc. 2; H351 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0.25 - < 1

For explanation of abbreviations see section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

General advice : Have the product container, label or Safety Data Sheet with

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you when calling the emergency number, a poison control center or physician, or going for treatment.

- If inhaled : Move the victim 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.
- In case of 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.
- In case of 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.
- If swallowed : If swallowed, seek medical advice immediately and show this container or label.  
Do not induce vomiting: contains petroleum distillates and/or aromatic solvents.

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

Symptoms : Aspiration may cause pulmonary oedema and pneumonitis.

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

Treatment : There is no specific antidote available.  
Treat symptomatically.  
Do not induce vomiting: contains petroleum distillates and/or aromatic solvents.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media : Extinguishing media - small fires  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
Extinguishing media - large fires  
Alcohol-resistant foam  
or  
Water spray
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

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

Specific hazards during fire-fighting : As the product contains combustible organic components, fire will produce dense black smoke containing hazardous prod-

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ucts of combustion (see section 10).  
Exposure to decomposition products may be a hazard to health.

### 5.3 Advice for firefighters

Special protective equipment for firefighters : Wear full protective clothing and 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.

## SECTION 6: Accidental release measures

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

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

### 6.2 Environmental precautions

Environmental precautions : Prevent further leakage or spillage if safe to do so.  
Do not flush into surface water or sanitary sewer system.  
If the product contaminates rivers and lakes or drains inform respective authorities.

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

Methods for cleaning up : Contain spillage, and then collect 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).  
Clean contaminated surface thoroughly.  
Clean with detergents. Avoid solvents.  
Retain and dispose of contaminated wash water.

### 6.4 Reference to other sections

For disposal considerations see section 13., Refer to protective measures listed in sections 7 and 8.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe 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.

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

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 feedingstuffs.

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### 7.3 Specific end use(s)

Specific use(s) : For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified	64742-94-5	TWA	8 ppm 50 mg/m <sup>3</sup>	Supplier
Further information	Substances used as active ingredients in pesticides are listed under their systematic chemical names and/or their (ISO) common names. These may sometimes be used as parts of the names of proprietary pesticide formulations. In all cases, the exposure limit applies to the specific active ingredient in the workplace atmosphere and not the formulation as a whole.			
pinoxaden	243973-20-8	TLV-C	0.1 mg/m <sup>3</sup>	Syngenta
Further information	Substances used as active ingredients in pesticides are listed under their systematic chemical names and/or their (ISO) common names. These may sometimes be used as parts of the names of proprietary pesticide formulations. In all cases, the exposure limit applies to the specific active ingredient in the workplace atmosphere and not the formulation as a whole.			
clodinafop-propargyl (ISO)	105512-06-9	TWA	1 mg/m <sup>3</sup>	Syngenta
Further information	Substances used as active ingredients in pesticides are listed under their systematic chemical names and/or their (ISO) common names. These may sometimes be used as parts of the names of proprietary pesticide formulations. In all cases, the exposure limit applies to the specific active ingredient in the workplace atmosphere and not the formulation as a whole.			
cloquintocet-mexyl	99607-70-2	TWA	5 mg/m <sup>3</sup>	Syngenta
naphthalene	91-20-3	TWA	10 ppm 50 mg/m <sup>3</sup>	91/322/EEC
Further information	Indicative			

#### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
cloquintocet-mexyl	Industrial use	Dermal	Long-term exposure, Systemic effects	3.33 mg/kg
	Industrial use	Inhalation	Long-term exposure, Systemic effects	0.303 mg/m <sup>3</sup>
Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified	Industrial use	Dermal	Long-term systemic effects	12.5 mg/kg

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	Industrial use	Inhalation	Long-term systemic effects	151 mg/m <sup>3</sup>
	Consumers	Dermal	Long-term systemic effects	7.5 mg/kg
	Consumers	Oral	Long-term systemic effects	32 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term systemic effects	7.5 mg/kg

### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
cloquintocet-mexyl	Fresh water	0.0018 mg/l
	Fresh water sediment	0.934 mg/kg dry weight (d.w.)
	Marine water	0.00018 mg/l
	Marine sediment	0.0934 mg/kg dry weight (d.w.)
	Soil	0.463 mg/kg dry weight (d.w.)

## 8.2 Exposure controls

### 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.

Maintain air concentrations below occupational exposure standards.  
Where necessary, seek additional occupational hygiene advice.

### Personal protective equipment

Eye protection : Tightly fitting safety goggles  
Always wear eye protection when the potential for inadvertent eye contact with the product cannot be excluded.

Use eye protection according to EN 166.

Hand protection

Material : Nitrile rubber  
Break through time : > 480 min  
Glove thickness : 0.5 mm

Remarks : Wear protective gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The break through time depends amongst other things on the material, the thickness

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and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

- Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.  
Remove and wash contaminated clothing before re-use.  
Wear as appropriate:  
Impervious clothing
- Respiratory protection : No personal respiratory protective equipment normally required.  
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- 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.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Appearance : clear, liquid
- Colour : yellow to brown
- Odour : aromatic
- Odour Threshold : No data available
- pH : 3 - 7  
Concentration: 1 % w/v
- Melting point/range : No data available
- Boiling point/boiling range : No data available
- Flash point : 79 °C(1009 hPa)  
79 °C  
Method: Pensky-Martens closed cup
- Evaporation rate : No data available
- Flammability (solid, gas) : No data available



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Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Density	:	1.051 g/cm <sup>3</sup> (20 °C)
Solubility(ies)		
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	315 °C
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	5.7 mPa.s (40 °C)
		11.7 mPa.s (20 °C)
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

### 9.2 Other information

Surface tension	:	37.0 mN/m, 25 °C
		38.6 mN/m, 20 °C

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None reasonably foreseeable.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions	:	No dangerous reaction known under conditions of normal use.
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### 10.4 Conditions to avoid

Conditions to avoid	:	No decomposition if used as directed.
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### 10.5 Incompatible materials

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Materials to avoid : None known.

### 10.6 Hazardous decomposition products

Hazardous decomposition products : No hazardous decomposition products are known.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Information on likely routes of exposure : Ingestion  
Inhalation  
Skin contact  
Eye contact

#### Acute toxicity

##### Product:

Acute oral toxicity : LD50 (Rat, female): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : Acute toxicity estimate: > 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: Calculation method

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

##### Components:

##### **clodinafop-propargyl (ISO):**

Acute oral toxicity : LD50 (Rat, male and female): 1,829 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.325 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

##### **pinoxaden:**

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat, male): 4.63 mg/l  
Exposure time: 4 h

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Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

### **cloquintocet-mexyl:**

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 0.935 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The component/mixture is moderately toxic after short term inhalation.  
Remarks: Highest attainable concentration

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

### **naphthalene:**

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

### **Skin corrosion/irritation**

#### **Product:**

Species : Rabbit  
Result : Mild skin irritation

#### **Components:**

##### **clodinafop-propargyl (ISO):**

Species : Rabbit  
Result : No skin irritation

##### **pinoxaden:**

Method : Based on Human Evidence  
Result : Irritating to skin.

##### **cloquintocet-mexyl:**

Species : Rabbit  
Result : No skin irritation

### **Serious eye damage/eye irritation**

#### **Product:**

Species : Rabbit  
Result : Eye irritation

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### Components:

#### **tetrahydro-2-furylmethanol:**

Result : Eye irritation

#### **clodinafop-propargyl (ISO):**

Species : Rabbit  
Result : No eye irritation

#### **pinoxaden:**

Species : Rabbit  
Result : Irritation to eyes, reversing within 21 days

#### **cloquintocet-mexyl:**

Species : Rabbit  
Result : No eye irritation

### **Respiratory or skin sensitisation**

#### Product:

Test Type : Buehler Test  
Species : Guinea pig  
Result : May cause sensitisation by skin contact.

### Components:

#### **clodinafop-propargyl (ISO):**

Species : Guinea pig  
Result : May cause sensitisation by skin contact.

#### **pinoxaden:**

Test Type : mouse lymphoma cells  
Species : Mouse  
Result : The product is a skin sensitiser, sub-category 1A.

Test Type : Respiratory sensitisation  
Result : Does not cause respiratory sensitisation.  
Remarks : Experience with human exposure

#### **cloquintocet-mexyl:**

Species : Guinea pig  
Result : May cause sensitisation by skin contact.

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### Germ cell mutagenicity

#### Components:

##### **clodinafop-propargyl (ISO):**

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects.

##### **pinoxaden:**

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects.

##### **cloquintocet-mexyl:**

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects.

### Carcinogenicity

#### Components:

##### **clodinafop-propargyl (ISO):**

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

##### **pinoxaden:**

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

##### **cloquintocet-mexyl:**

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

##### **naphthalene:**

Carcinogenicity - Assessment : Limited evidence of carcinogenicity in animal studies

### Reproductive toxicity

#### Components:

##### **tetrahydro-2-furylmethanol:**

Reproductive toxicity - Assessment : Clear evidence of adverse effects on development, based on animal experiments., Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

##### **clodinafop-propargyl (ISO):**

Reproductive toxicity - Assessment : No toxicity to reproduction

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### **pinoxaden:**

Reproductive toxicity - Assessment : No toxicity to reproduction

### **cloquintocet-mexyl:**

Reproductive toxicity - Assessment : No toxicity to reproduction

### **STOT - single exposure**

#### **Components:**

### **pinoxaden:**

Assessment : Based on Human Evidence, The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

Remarks : Breathing difficulties  
Cough  
Acute irritation of the respiratory system leading to tightness of the chest and an asthmatic condition.

### **cloquintocet-mexyl:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

### **STOT - repeated exposure**

#### **Components:**

### **clodinafop-propargyl (ISO):**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Remarks : Repeated exposure may cause anaemia.

### **pinoxaden:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### **cloquintocet-mexyl:**

Target Organs : Urinary system, Liver

Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

### **Aspiration toxicity**

#### **Components:**

### **Solvent naphtha (petroleum), heavy arom.; Kerosine -unspecified:**

May be fatal if swallowed and enters airways.

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### SECTION 12: Ecological information

#### 12.1 Toxicity

##### Product:

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 9.3 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 5.9 mg/l  
Exposure time: 48 h
- Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): 5.7 mg/l  
Exposure time: 72 h
- EbC50 (Pseudokirchneriella subcapitata (green algae)): 2.9 mg/l  
Exposure time: 72 h

##### Components:

##### **Solvent naphtha (petroleum), heavy arom.; Kerosine -unspecified:**

##### **Ecotoxicology Assessment**

- Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

##### **clodinafop-propargyl (ISO):**

- Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 0.21 mg/l  
Exposure time: 96 h
- LC50 (Oncorhynchus mykiss (rainbow trout)): 0.31 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 60 mg/l  
Exposure time: 48 h
- Toxicity to algae : ErC50 (Desmodesmus subspicatus (green algae)): > 3.2 mg/l  
Exposure time: 72 h
- NOEC (Desmodesmus subspicatus (green algae)): 0.24 mg/l  
Exposure time: 72 h
- M-Factor (Acute aquatic toxicity) : 1
- Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l  
Exposure time: 3 h
- Toxicity to fish (Chronic toxicity) : NOEC: 0.024 mg/l  
Exposure time: 33 d  
Species: Pimephales promelas (fathead minnow)

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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.23 mg/l  
Exposure time: 21 d  
Species: Daphnia (water flea)

M-Factor (Chronic aquatic toxicity) : 1

### **pinoxaden:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 10.3 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 52 mg/l  
Exposure time: 48 h

LC50 (Americamysis bahia (Mysid shrimp)): 4.7 mg/l  
Exposure time: 96 h

Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): 41 mg/l  
Exposure time: 72 h

ErC50 (Skeletonema costatum (marine diatom)): 1.72 mg/l  
Exposure time: 72 h

NOEC (Skeletonema costatum (marine diatom)): 0.94 mg/l  
End point: Growth rate  
Exposure time: 96 h

NOEC (Lemna gibba (gibbous duckweed)): 0.73 mg/l  
End point: Growth rate  
Exposure time: 7 d

Toxicity to fish (Chronic toxicity) : NOEC: 6.6 mg/l  
Exposure time: 28 d  
Species: Oncorhynchus mykiss (rainbow trout)

### **cloquintocet-mexyl:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.97 mg/l  
Exposure time: 96 h

LC50 (Gobiocypris rarus (rare gudgeon)): 0.102 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 0.82 mg/l  
Exposure time: 48 h

Toxicity to algae : ErC50 (Desmodesmus subspicatus (green algae)): > 2.2 mg/l  
Exposure time: 72 h

NOEC (Desmodesmus subspicatus (green algae)): 0.12 mg/l  
End point: Growth rate  
Exposure time: 72 h



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M-Factor (Acute aquatic toxicity) : 1

Toxicity to microorganisms : EC50 (activated sludge): > 1,000 mg/l  
Exposure time: 3 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: > 0.437 mg/l  
Exposure time: 21 d  
Species: Daphnia (water flea)

M-Factor (Chronic aquatic toxicity) : 1

### naphthalene:

#### Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

## 12.2 Persistence and degradability

### Components:

#### clodinafop-propargyl (ISO):

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: < 1 d (20 °C)  
Remarks: Product is not persistent.

#### pinoxaden:

Biodegradability : Result: rapidly degradable

Stability in water : Degradation half life: 0.3 d  
Remarks: Product is not persistent.

#### cloquintocet-mexyl:

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 0.4 d  
Remarks: Product is not persistent.

## 12.3 Bioaccumulative potential

### Components:

#### clodinafop-propargyl (ISO):

Bioaccumulation : Remarks: Does not bioaccumulate.

Partition coefficient: n- : log Pow: 3.9 (25 °C)

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octanol/water

### **pinoxaden:**

Bioaccumulation : Remarks: Low bioaccumulation potential.

Partition coefficient: n-octanol/water : log Pow: 3.2 (25 °C)

### **cloquintocet-mexyl:**

Bioaccumulation : Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water : log Pow: 5.24 (25 °C)

## 12.4 Mobility in soil

### Components:

#### **clodinafop-propargyl (ISO):**

Distribution among environmental compartments : Remarks: Low mobility in soil.

Stability in soil : Dissipation time: < 0.5 d  
Percentage dissipation: 50 % (DT50)  
Remarks: Product is not persistent.

#### **pinoxaden:**

Distribution among environmental compartments : Remarks: Moderately mobile in soils

Stability in soil : Dissipation time: 0.1 - 1.8 d  
Percentage dissipation: 50 % (DT50)  
Remarks: Product is not persistent.

#### **cloquintocet-mexyl:**

Distribution among environmental compartments : Remarks: immobile

Stability in soil : Dissipation time: 2.4 d  
Percentage dissipation: 50 % (DT50)  
Remarks: Product is not persistent.

## 12.5 Results of PBT and vPvB assessment

### Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

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### Components:

#### **clodinafop-propargyl (ISO):**

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

#### **pinoxaden:**

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

#### **cloquintocet-mexyl:**

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

### 12.6 Other adverse effects

#### Product:

Additional ecological information : Long-term (chronic) aquatic hazard  
Classification of the product is based on the summation of the concentrations of classified components.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

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 to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.

Waste Code : 150110, packaging containing residues of or contaminated by dangerous substances

## SECTION 14: Transport information

### 14.1 UN number

ADN : UN 3082

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**ADR** : UN 3082

**RID** : UN 3082

**IMDG** : UN 3082

**IATA** : UN 3082

### 14.2 UN proper shipping name

**ADN** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(CLODINAFOF-PROPARGYL AND SOLVENT NAPHTHA)

**ADR** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(CLODINAFOF-PROPARGYL AND SOLVENT NAPHTHA)

**RID** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(CLODINAFOF-PROPARGYL AND SOLVENT NAPHTHA)

**IMDG** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(CLODINAFOF-PROPARGYL AND SOLVENT NAPHTHA)

**IATA** : Environmentally hazardous substance, liquid, n.o.s.  
(CLODINAFOF-PROPARGYL AND SOLVENT NAPHTHA)

### 14.3 Transport hazard class(es)

**ADN** : 9

**ADR** : 9

**RID** : 9

**IMDG** : 9

**IATA** : 9

### 14.4 Packing group

**ADN**  
Packing group : III  
Classification Code : M6  
Hazard Identification Number : 90  
Labels : 9

**ADR**  
Packing group : III  
Classification Code : M6  
Hazard Identification Number : 90  
Labels : 9  
Tunnel restriction code : (-)

**RID**  
Packing group : III  
Classification Code : M6  
Hazard Identification Number : 90  
Labels : 9

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### IMDG

Packing group : III  
Labels : 9  
EmS Code : F-A, S-F

### IATA (Cargo)

Packing instruction (cargo aircraft) : 964  
Packing instruction (LQ) : Y964  
Packing group : III  
Labels : Miscellaneous

### IATA (Passenger)

Packing instruction (passenger aircraft) : 964  
Packing instruction (LQ) : Y964  
Packing group : III  
Labels : Miscellaneous

## 14.5 Environmental hazards

### ADN

Environmentally hazardous : yes

### ADR

Environmentally hazardous : yes

### RID

Environmentally hazardous : yes

### IMDG

Marine pollutant : yes

### IATA (Passenger)

Environmentally hazardous : yes

### IATA (Cargo)

Environmentally hazardous : yes

## 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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

Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

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- REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable
- REACH - List of substances subject to authorisation (Annex XIV) : Not applicable
- Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable
- Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable
- REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Conditions of restriction for the following entries should be considered:  
Number on list 3  
tetrahydro-2-furylmethanol (Number on list 30)

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
E2	ENVIRONMENTAL HAZARDS	200 t	500 t
34	Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams), (d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d)	2,500 t	25,000 t

### Other regulations:

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Use plant protection products safely. Always read the label and product information before use.

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

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### 15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

## SECTION 16: Other information

### Full text of H-Statements

H228	: Flammable solid.
H302	: Harmful if swallowed.
H304	: May be fatal if swallowed and enters airways.
H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H319	: Causes serious eye irritation.
H332	: Harmful if inhaled.
H335	: May cause respiratory irritation.
H351	: Suspected of causing cancer.
H360Df	: May damage the unborn child. Suspected of damaging fertility.
H373	: May cause damage to organs through prolonged or repeated exposure.
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.

### Full text of other abbreviations

Acute Tox.	: Acute toxicity
Aquatic Acute	: Short-term (acute) aquatic hazard
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Asp. Tox.	: Aspiration hazard
Carc.	: Carcinogenicity
Eye Irrit.	: Eye irritation
Flam. Sol.	: Flammable solids
Repr.	: Reproductive toxicity
Skin Irrit.	: Skin irritation
Skin Sens.	: Skin sensitisation
STOT RE	: Specific target organ toxicity - repeated exposure
STOT SE	: Specific target organ toxicity - single exposure
91/322/EEC	: Europe. Commission Directive 91/322/EEC on establishing indicative limit values
91/322/EEC / TWA	: Limit Value - eight hours

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System;

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GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

#### Classification of the mixture:

Eye Irrit. 2	H319
Skin Sens. 1	H317
Repr. 1B	H360Df
Asp. Tox. 1	H304
Aquatic Chronic 2	H411

#### Classification procedure:

Based on product data or assessment
Based on product data or assessment
Calculation method
Calculation method
Calculation method

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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