

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

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

#### 1.1 Product identifier

Trade name : GLODIAC  
Design code : A21796A  
Product Registration Number : MAPP 19854  
Unique Formula Identifier (UFI) : C1F4-60JU-C00M-R5VC

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

Use of the Substance/Mixture : Herbicide  
Recommended restrictions on use : professional use

#### 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

---

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)**

Skin irritation, Category 2      H315: Causes skin irritation.  
Skin sensitisation, Sub-category 1A      H317: May cause an allergic skin reaction.  
Long-term (chronic) aquatic hazard,      H411: Toxic to aquatic life with long lasting effects.

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

Category 2

### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)**

Hazard pictograms :



Signal word : Warning

Hazard statements :  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements :  
**Prevention:**  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P280 Wear protective gloves.  
**Response:**  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
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.

Hazardous components which must be listed on the label:

pinoxaden (ISO)  
cloquintocet-mexyl

#### Additional Labelling

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

### 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.

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

##### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
hydrocarbons, C10-C13, aromatics, <1% naphthalene	Not Assigned 922-153-0 01-2119451097-39	Asp. Tox. 1; H304 Aquatic Chronic 2; H411	>= 25 - < 30
2-methylpentane-2,4-diol	107-41-5 203-489-0 603-053-00-3 01-2119539582-35	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319	>= 10 - < 20
pinoxaden (ISO)	243973-20-8  607-726-00-2	Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1A; H317 Repr. 2; H361d STOT SE 3; H335 (Respiratory system) Aquatic Acute 1; H400 Aquatic Chronic 3; H412  M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	>= 3 - < 10
cloquintocet-mexyl	99607-70-2  01-2119381871-32, 01-2119387592-28	Acute Tox. 4; H332 Skin Sens. 1; H317 STOT RE 2; H373 (Urinary system, Liver) Aquatic Acute 1; H400 Aquatic Chronic 1; H410  M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	>= 1 - < 2.5

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

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	$\geq 0.25 - < 1$
-------------	--------------------------------------	---	-------------------

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 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.

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

---

### 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 firefighting : 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.

#### 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

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

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.

### 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
hydrocarbons, C10-C13, aromatics, <1% naphthalene	Not Assigned	TWA	8 ppm 50 mg/m <sup>3</sup>	Supplier
2-methylpentane-2,4-diol	107-41-5	TWA	25 ppm 123 mg/m <sup>3</sup>	GB EH40
		STEL	25 ppm 123 mg/m <sup>3</sup>	GB EH40
pinoxaden (ISO)	243973-20-8	TLV-C	0.1 mg/m <sup>3</sup>	Syngenta
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

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version  
1.0

Revision Date:  
11.01.2022

SDS Number:  
S00051880144

This version replaces all previous versions.

Further information: Indicative

### Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
naphthalene	91-20-3	1-hydroxypyrene: 4 µmol/mol creatinine (Urine)	After shift	GB EH40 BAT

### Derived No Effect Level (DNEL):

Substance name	End Use	Exposure routes	Potential health effects	Value
tris(2-ethylhexyl) phosphate	Workers	Inhalation	Long-term systemic effects	350 mg/m <sup>3</sup>
	Workers	Inhalation	Acute systemic effects	2800 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	50 mg/kg
	Workers	Dermal	Acute systemic effects	40 mg/kg
	Consumers	Dermal	Acute systemic effects	200 mg/kg
	Consumers	Dermal	Long-term systemic effects	25 mg/kg
	Consumers	Inhalation	Acute systemic effects	500 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term systemic effects	62.5 mg/m <sup>3</sup>
	Consumers	Oral	Acute systemic effects	200 mg/kg
	Consumers	Oral	Long-term systemic effects	25 mg/kg
2-methylpentane-2,4-diol	Workers	Inhalation	Short-term exposure, Local effects	98 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term systemic effects	14 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term local effects	49 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	2 mg/kg
	Consumers	Inhalation	Short-term exposure, Local effects	49 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term systemic effects	3.5 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term local effects	25 mg/m <sup>3</sup>
	Consumers	Oral	Long-term systemic effects	1 mg/kg
	Consumers	Dermal	Long-term systemic effects	1 mg/kg

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

hydrocarbons, C10-C13, aromatics, <1% naphthalene	Workers	Inhalation	Long-term systemic effects	151 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	12.5 mg/kg
	Consumers	Inhalation	Long-term systemic effects	32 mg/m <sup>3</sup>
	Consumers	Dermal	Long-term systemic effects	7.5 mg/kg
	Consumers	Oral	Long-term systemic effects	7.5 mg/kg
castor oil, ethoxylated	Workers	Inhalation	Long-term systemic effects	16.4 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	4.67 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	2.9 mg/m <sup>3</sup>
	Consumers	Dermal	Long-term systemic effects	1.67 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	1.67 mg/kg bw/day
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>
naphthalene	Workers	Inhalation	Long-term systemic effects	25 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term local effects	25 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	3.57 mg/kg

### Predicted No Effect Concentration (PNEC):

Substance name	Environmental Compartment	Value
tris(2-ethylhexyl) phosphate	Sewage treatment plant	1 mg/l
2-methylpentane-2,4-diol	Fresh water	0.429 mg/l
	Marine water	0.0429 mg/l
	Fresh water sediment	1.79 mg/kg
	Marine sediment	0.179 mg/kg
	Soil	0.11 mg/kg
castor oil, ethoxylated	Fresh water sediment	0.0129 mg/kg dry weight (d.w.)
	Marine sediment	0.00129 mg/kg dry weight (d.w.)
	Soil	0.00258 mg/kg dry weight (d.w.)
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



# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

	Marine sediment	0.0934 mg/kg dry weight (d.w.)
	Soil	0.463 mg/kg dry weight (d.w.)
naphthalene	Fresh water	0.0024 mg/l
	Marine water	0.0024 mg/l
	Sewage treatment plant	2.9 mg/l
	Fresh water sediment	0.0672 mg/kg
	Marine sediment	0.0672 mg/kg
	Soil	0.0533 mg/kg

### 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 : No special protective equipment required.  
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 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.

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:

Respiratory protection : Impervious clothing  
No personal respiratory protective equipment normally

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

Protective measures : required.  
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.  
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 to opalescent  
Colour : light yellow

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 : 104 °C  
Method: Pensky-Martens closed cup

Evaporation rate : No data available

Flammability (solid, gas) : No data available

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 : 0.95 - 0.99 g/cm<sup>3</sup> (20 °C)

Solubility(ies)  
Water solubility : No data available  
Solubility in other solvents : No data available

Partition coefficient: n- : No data available

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

octanol/water  
Auto-ignition temperature : 370 °C  
  
Decomposition temperature : No data available  
  
Viscosity  
Viscosity, kinematic : 22.7 mm<sup>2</sup>/s (40 °C)  
  
Explosive properties : Not explosive  
  
Oxidizing properties : The substance or mixture is not classified as oxidizing.

### 9.2 Other information

Particle size : No data available

---

## 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.

### 10.4 Conditions to avoid

Conditions to avoid : No decomposition if used as directed.

### 10.5 Incompatible materials

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

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

### Acute toxicity

#### Product:

- Acute oral toxicity : LD50 (Rat, female): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute oral toxicity  
Remarks: Based on data from similar materials
- Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity  
Remarks: Based on data from similar materials

#### Components:

##### **2-methylpentane-2,4-diol:**

- Acute oral toxicity : LD50 Oral (Rat): 2,000 mg/kg
- Acute dermal toxicity : LD50 Dermal (Rat): 2,000 mg/kg

##### **pinoxaden (ISO):**

- Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg  
Acute toxicity estimate: 500 mg/kg  
Method: Acute toxicity estimate according to Regulation (EC) No. 1272/2008
- Acute inhalation toxicity : LC50 (Rat, male): 4.63 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Acute toxicity estimate: 4.63 mg/l  
Test atmosphere: dust/mist  
Method: Acute toxicity estimate according to Regulation (EC) No. 1272/2008
- 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.

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

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 : Irritating to skin.  
Remarks : Based on data from similar materials

Result : Repeated exposure may cause skin dryness or cracking.

#### **Components:**

##### **hydrocarbons, C10-C13, aromatics, <1% naphthalene:**

Result : Repeated exposure may cause skin dryness or cracking.

##### **2-methylpentane-2,4-diol:**

Species : Rabbit  
Result : Irritating to skin.

##### **pinoxaden (ISO):**

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 : No eye irritation  
Remarks : Based on data from similar materials

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

### Components:

#### **2-methylpentane-2,4-diol:**

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

#### **pinoxaden (ISO):**

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 : The product is a skin sensitiser, sub-category 1A.  
Remarks : Based on data from similar materials

### Components:

#### **pinoxaden (ISO):**

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.

### **Germ cell mutagenicity**

#### Components:

#### **2-methylpentane-2,4-diol:**

Germ cell mutagenicity-Assessment : In vitro tests did not show mutagenic effects

#### **pinoxaden (ISO):**

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

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

### Assessment

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

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

#### **Carcinogenicity**

##### Components:

#### **2-methylpentane-2,4-diol:**

Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen

#### **pinoxaden (ISO):**

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:

#### **2-methylpentane-2,4-diol:**

Reproductive toxicity - Assessment : No toxicity to reproduction

#### **pinoxaden (ISO):**

Reproductive toxicity - Assessment : No toxicity to reproduction

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

Reproductive toxicity - Assessment : No toxicity to reproduction

### **STOT - single exposure**

##### Components:

#### **pinoxaden (ISO):**

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

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

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:**

### **pinoxaden (ISO):**

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:**

### **hydrocarbons, C10-C13, aromatics, <1% naphthalene:**

May be fatal if swallowed and enters airways.

---

## SECTION 12: Ecological information

### 12.1 Toxicity

#### **Product:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 19 mg/l  
Exposure time: 96 h  
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1.8 mg/l  
Exposure time: 48 h  
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : ErC50 (Raphidocelis subcapitata (freshwater green alga)): 32 mg/l  
Exposure time: 72 h  
Remarks: Based on data from similar materials

NOEC (Raphidocelis subcapitata (freshwater green alga)): 5.5 mg/l  
End point: Growth rate



# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

Exposure time: 72 h  
Remarks: Based on data from similar materials

### Components:

#### **hydrocarbons, C10-C13, aromatics, <1% naphthalene:**

- Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): 3.6 mg/l  
Exposure time: 96 h  
Remarks: Information given is based on data obtained from similar substances.
- Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): 1.1 mg/l  
Exposure time: 48 h  
Remarks: Information given is based on data obtained from similar substances.
- Toxicity to algae/aquatic plants : EL50 (Raphidocelis subcapitata (freshwater green alga)): 7.9 mg/l  
End point: Growth rate  
Exposure time: 72 h  
Remarks: Information given is based on data obtained from similar substances.
- NOELR (Raphidocelis subcapitata (freshwater green alga)): 0.22 mg/l  
End point: Growth rate  
Exposure time: 72 h  
Remarks: Information given is based on data obtained from similar substances.

### **Ecotoxicology Assessment**

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

#### **pinoxaden (ISO):**

- 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
- Toxicity to algae/aquatic plants : ErC50 (Raphidocelis subcapitata (freshwater green alga)): 3.6 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

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

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

M-Factor (Acute aquatic toxicity) : 1

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

M-Factor (Chronic aquatic toxicity) : 1

### 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/aquatic plants : 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

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.

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

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

### 12.2 Persistence and degradability

#### Components:

##### **hydrocarbons, C10-C13, aromatics, <1% naphthalene:**

Biodegradability : Result: Readily biodegradable.

##### **2-methylpentane-2,4-diol:**

Biodegradability : Result: Readily biodegradable.

##### **pinoxaden (ISO):**

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:

##### **pinoxaden (ISO):**

Bioaccumulation : Remarks: Low bioaccumulation potential.

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

Bioaccumulation : Remarks: Does not bioaccumulate.

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

### 12.4 Mobility in soil

#### Components:

##### **pinoxaden (ISO):**

Distribution among environmental compartments : Remarks: Moderately mobile in soils

Stability in soil : Dissipation time: 0.1 - 1.8 d  
Percentage dissipation: 50 % (DT50)

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

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.

### **Components:**

#### **2-methylpentane-2,4-diol:**

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 (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).

#### **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).

#### **naphthalene:**

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

No data available

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

### 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.

### SECTION 14: Transport information

#### 14.1 UN number

- ADR : UN 3082  
RID : UN 3082  
IMDG : UN 3082  
IATA : UN 3082

#### 14.2 UN proper shipping name

- ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(CLOQUINTOCET-MEXYL AND SOLVENT NAPHTHA)
- RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(CLOQUINTOCET-MEXYL AND SOLVENT NAPHTHA)
- IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(CLOQUINTOCET-MEXYL AND SOLVENT NAPHTHA)
- IATA : Environmentally hazardous substance, liquid, n.o.s.  
(CLOQUINTOCET-MEXYL AND SOLVENT NAPHTHA)

#### 14.3 Transport hazard class(es)

- ADR : 9  
RID : 9  
IMDG : 9

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

**IATA** : 9

### 14.4 Packing group

#### 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

#### 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

#### 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

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

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

Relevant EU provisions transposed through retained EU law

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
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	naphthalene
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	:	Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	:	Not applicable

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

E2	ENVIRONMENTAL HAZARDS	Quantity 1 200 t	Quantity 2 500 t
----	-----------------------	---------------------	---------------------

### 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.

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

- H351 : Suspected of causing cancer.
- H361d : Suspected of damaging the unborn child.
- 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
- GB EH40 : UK. EH40 WEL - Workplace Exposure Limits
- GB EH40 BAT : UK. Biological monitoring guidance values
- 91/322/EEC / TWA : Limit Value - eight hours
- GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)
- GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

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; AIIC - Australian Inventory of Industrial Chemicals; 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; 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



# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## GLODIAC

Version 1.0      Revision Date: 11.01.2022      SDS Number: S00051880144      This version replaces all previous versions.

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; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

### Further information

#### Classification of the mixture:

Skin Irrit. 2	H315
Skin Sens. 1A	H317
Repr. 2	H361d
Aquatic Chronic 2	H411

#### Classification procedure:

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

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.

GB / EN