

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

### 1.1 Product identifier

Product name Sentinel Sol PTD.

Product Code PHYDIG0544

### 1.2 Relevant use of the product

Applications Complementary feed for animals

### 1.3 Manufacturer, Importer or Responsible Party

Name PHYTOSYNTHESE

Address 57 Avenue Jean Jaurès, 63200 MOZAC - France

Telephone +33 (0)4 73 33 15 00

Contact email email@phytosynthese.com





### 1.4 Emergency phone number

Telephone -

## 2. HAZARDS IDENTIFICATION

### 2.1. The hazard classification of the chemical according to GHS (5<sup>th</sup> edition)

Hazard identification according to applicable US legislation (HCS 2012) and Canadian legislation (WHMIS 2015)

	Classification	Hazard statements (H)	
	Skin Irrit. 2	H315	Causes skin irritation.
	Eye Dam. 1	H318	Causes serious eye damage.
	Skin Sens. 1	H317	May cause an allergic skin reaction.
<b>2.2. Danger symbols</b>			
<b>2.3. Signal word</b>	DANGER		
<b>2.4. Hazard statements</b>	H315 - Causes skin irritation. H318 - Causes serious eye damage. H317 - May cause an allergic skin reaction.		
<b>2.5. Precautionary statements</b>	Precautionary Statements - Prevention P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P280 - Wear protective gloves/protective clothing/eye protection/face protection..  Precautionary Statements - Response P310 - Immediately call a POISON CENTER or doctor/physician. P302 + P352- IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention.		

- Precautionary Statements - P362 + P364 - Take off contaminated clothing and wash it before reuse.
- Storage
- Precautionary Statements P501 - Dispose of contents/container in accordance with applicable local/regional/national/international regulations
- Disposal
- 2.6. Description of any hazards not otherwise classified** No data available
- 2.7. % ingredient(s) with unknown acute toxicity** 0

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS-Nr. CE-Nr.	Concentration %
Cassia Bark, Saigon oil	N°CAS: 8007-80-5 N°EC: 284-635-0	1-10%
Thymol	N°CAS: 89-83-8 N°EC: 201-944-8	1-10%
Citronnella oil	N°CAS: 8000-29-1 N°EC: 294-954-7	1-10%
Lemon grass oil	N°CAS: 89998-14-1 N°EC: 289-752-0	1-10%
Oregano	N°CAS: 84012-24-8 N°EC: 281-670-3	1-10%
Cinnamaldehyde	N°CAS: 104-55-2 N°EC: 203-213-9	0.1-1%
Clove leaf oil	N°CAS: 8000-34-8 N°EC: 384-635-0	0.1-1%
Quillaia extract	N°CAS: -	0.1-1%
Garlic oil	N°CAS: 8000-78-0 N°EC: 231-371-1	0.1-1%
Addition of non hazardous compounds	-	46-94.5%

### 4. FIRST AID MEASURES

- General information In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. It is recommended that those who provide first aid have personal protective equipment. No action should be taken involving any personal risk or without suitable training.
- Self-protection of the first aider First aider: Pay attention to self-protection!.

#### 4.1 First Aid measures after Inhalation

- Following inhalation Move the victim to fresh air.If the victim is unconscious, place in recovery

position and call a doctor. If breathing is irregular or stopped, administer artificial respiration and call a doctor.

**4.2 First Aid measures after Skin exposure**

Following skin contact

If low and localized projection, thoroughly rinse the exposed skin area with water for at least 15 minutes and undress the victim if necessary. In case of large projection and/or distributed on a large part of the body, move the victim under a safety shower, rinse, do the undressing in the shower and continue to rinse for at least 15 minutes.

**4.3 First Aid measures after Eye exposure**

Following eye contact

If the eye is exposed, use eyewash and rinse with water (or flushing fluid) abundantly keeping the eye open for at least 15 minutes. Remove contact lenses, if possible. If there is any redness, pain or visual gene, consult an ophthalmologist.

**4.4 First Aid measures after Ingestion**

Following ingestion

In case of spontaneous vomiting, keep the head below the hips to avoid inhalation. If the victim is perfectly conscious/ lucid, rinse the mouth. Consult a doctor or a poisons unit immediately.

**4.5 Most important symptoms and effects, both acute and delayed**

The important known symptoms and effects are described in the labeling (see section 2) and/ or Section 11. To date, no other important symptom or effect are known

**4.6 Indication of any immediate medical attention and special treatment needed**

Notes to physician:

Symptomatic treatment.  
If in doubt or if symptoms persist, always call a doctor.

**5. FIREFIGHTING MEASURES**

**5.1 Extinguishing media**

Suitable:

Water spray with additive, foam, powder, sand.

Unsuitable:

-

**5.2 Special hazards arising from chemical or mixture during the fire**

In case of fire, hazardous decomposition products for health can form. Do not breathe fumes

**5.3 Special Protective Precautions or equipment for firefighters**

To put out a fire being born with essential oil(s) based product, use a specific fire extinguisher with powder ABC (or equivalent). If the fire is not important, it is possible to suffocate him by covering by sand.

Wear self-contained breathing apparatus (SCBA) and suitable protective clothing.

**6. ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment**

Refer to protective measures listed in sections 7 and 8.

Wear appropriate protective clothing, gloves and device of protection of eyes/ face. Wear a device of autonomous respiratory protection.

**6.2 Emergency procedures**

If spillage occurs on public roads, indicate the danger and warn the local authorities. Evacuate and restrict the access. Distance any source of ignition. Assure a good ventilation of the zone to avoid the formation of flammable vapors. Use personal protection equipment.

If spillage occurs on public roads, to indicate the danger and warn the local authorities. Stop the leak. Evacuate the danger zone. Approach the danger with back facing the wind. Disperse gases/ vapors by means of sprayed water. Remove incompatible materials and products.

Prevent discharge into sewers/ surface water/ groundwater. Prevent discharge into the ground/ basement. Immediately warn competent authorities in case of important spillage. Pump into an adapted reserve tank.

**6.3 Methods and materials used for containment**

In case of limited spillage:

Absorb or retain the liquid with some sand, soil or any material to limit spreading. Place the leaking container in a labelled, closed barrel to proceed in safety to a later disposal. Wash thoroughly the contaminated zone. Keep the rinsing waters as contaminated waste.

In case of major spillage:

Immediately evacuate the staff and air the zone.

**6.4 Cleanup procedures**

Refer to section 8 relative to the controls of the exposure and the individual protections, and to section 13 relative to the elimination.

**7. HANDLING AND STORAGE**

**7.1 Precautions for safe handling**

**Protective measures**

Wear an appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid respirer vapor or mist.

**Advices on general occupational hygiene**

Do not eat, drink or smoke in the working zone. Wash hands after every use. Remove contaminated clothes and protection equipment before going into a dining area.

**7.2 Conditions for safe storage**

For more information on storage conditions, refer to the technical datasheet.

Animal complementary feed to supplement the drinking water or the animal complete feed according to the provisions described in the technical datasheet.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Occupational Exposure Limits**

**8.2 Any other exposure limit used or recommended by chemical manufacturer**

No data available

**8.3 Engineering Controls**

No recommended particular precaution

**8.4 Personal Protective Equipment**

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In accordance with applicable US legislation (HCS 2012)

## Personal protection equipment



- Eye/face protection : Use safety glasses with lateral protection (eg. EN 166).
- Skin protection : Choose body protection in fonction of activity and possible exposure, eg. apron, protective boots, protective suit against chemicals (according to EN 14605 in case of splashes or EN ISO 13982 for dust).  
Hand protection: Use appropriate protective gloves, chemical-resistant (EN 374).  
In the case of prolonged direct contact, it is advisable to wear gloves with protection index 6, corresponding to a penetration time > 480 minutes according to EN 374, eg. nitrile rubber (0.4 mm).
- Respiratory protection : Use suitable respiratory protection at high concentrations breathing or prolonged action as average efficiency protective filter masks for solid and liquid particles (eg. EN 143 or 149, Type P2 or FFP2)..

## Environmental exposure controls

No specific measures in the normal conditions of use. If accidental release, refer to Section 6.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information of basic physical and chemical properties

Physical state:	Liquid with a possible slight deposit
Colour:	Whitish to pinkish beige
Odour:	Spicy
Odour threshold:	Not available
pH:	Not available
Melting point/freezing point:	Not available
Initial boiling point and boiling range:	Not available
Flash point:	Not available
Evaporation rate:	Not available
Flammability:	Not available
Upper/lower flammability or explosive limits:	Not available
Vapour pressure:	Not available
Vapour density:	Not available
Relative density:	Not available
Solubility(ies):	Soluble in water
Partition coefficient: n-octanol/water (Log KOC):	Not available
Auto-ignition temperature:	Not available

## 10. STABILITY AND REACTIVITY

**10.1 Reactivity** No data available.

**10.2 Chemical stability** The product is stable when storage instructions are followed. (Refer to

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	Technical data sheet)
<b>10.3 Possibility of hazardous reactions</b>	No data available.
<b>10.4 Conditions to avoid</b>	No data available.
<b>10.5 Incompatible materials</b>	No data available.
<b>10.6 Hazardous decomposition products</b>	No dangerous decomposition products known

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Acute oral toxicity

Acute toxicity			
Component	Acute toxicity (oral)	Acute toxicity (dermal)	Acute toxicity (inhal.)
Cassia oil	LD50(Rat) = 2650 mg/kg	LD50 (Rabbit) > 5000mg/kg	No data available
Thymol	LD50 (Rat) = 980 mg/kg	LD50 (Rabbit) > 2000 mg/kg	No data available
Citronella oil	LD50 (Rat) > 5000mg/kg	LD50 (Rabbit) = 4700 mg/kg	No data available
Lemongrass oil	LD50 = 4100 mg/kg	No data available	No data available
Oregano oil	LD50 (Rat) > 1850 mg/kg	LD50 (Rabbit) = 320 - 640 mg/kg	No data available
Cinnamaldehyde	LD50 (Rat) = 2220 mg/kg	LD50 (Rat) = 1000-2000 mg/kg	No data available
Clove oil	LD50 (Rat) = 1370 mg/kg	No data available	No data available
Quillaia extract	LD50 (Rat) >2000 mg/kg	No data available	No data available
Garlic oil	No data available	No data available	No data available
Irritation/ Sensitization			
Component	Skin corrosion/ irritation	Serious eye damage/ eye irritation	Sensitization
Cassia oil	May cause irritation and redness at the site of contact.. Causes skin irritation. May be absorbed through skin.	May cause irritation and redness. The eyes may water profusely. Causes eye irritation	No data available
Thymol	Causes severe skin burns	Causes serious eye irritation	Not classified

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Citronella oil	Irritant to skin and mucous membranes	May cause serious eye damage	May cause allergic skin reaction
Lemongrass oil	May cause irritation and redness at the site of contact. Causes skin irritation. May be absorbed through skin.	May cause serious eye damage	May cause allergic skin reaction
Oregano oil	Irritant to skin and mucous membranes	No irritant effect	May cause sensitization by skin contact
Cinnamaldehyde	Irritant to skin and mucous membranes	Irritating to eyes	No data available
Clove oil	No data available	Irritating to eyes	May cause sensitization by skin contact
Quillaia extract	No data available	Irritating to eyes	No data available
Garlic oil	May cause irritation and redness at the site of contact	Based on test data: there may be irritation and redness. The eyes may water profusely	No data available
<b>Evaluation of the CMR properties</b>			
<b>Component</b>	<b>Germ cell mutagenicity</b>	<b>Carcinogenicity</b>	<b>Reproductive toxicity</b>
Cassia oil	Mutagenic for bacteria and/or yeast. May affect genetic material (mutagenic)	No data available	No data available
Thymol	No known significant effects or critical hazards	No known significant effects or critical hazards	No data available
Citronella oil	No data available	No data available	No data available
Lemongrass oil	No data available	No data available	No data available
Oregano oil	No data available	No data available	No data available
Cinnamaldehyde	No data available	No data available	No data available
Clove oil	No data available	No data available	No data available
Quillaia extract	No data available	No data available	No data available
Garlic oil	No data available	No data available	No data available

Other Hazards			
Component	Specific toxicity for target organ - single exposure	Specific toxicity for target organ - repeated exposure	Aspiration hazard
Cassia oil	No data available	No data available	There may be irritation of the throat with a feeling of tightness in the chest. Inhalation of vapor may cause respiratory tract irritation. Inhalation of high concentrations of vapor may cause anesthetic effects.
Thymol	No data available	No data available	No data available
Citronella oil	No data available	No data available	No data available
Lemongrass oil	No data available	No data available	No data available
Oregano oil	No data available	No data available	No data available
Cinnamaldehyde	No data available	No data available	No data available
Clove oil	No data available	No data available	May cause respiratory irritation
Quillaia extract	No data available	No data available	Respiratory tract irritation.
Garlic oil	No data available	No data available	No data available

**11.2 Listed in IARC or considered carcinogen by NTP or OSHA** Conclusion : None

**11.3 Further information** Not applicable.

## 12. ECOLOGICAL INFORMATION

**12.1 Toxicity** No data available

**12.2 Persistence and degradability** No data available

**12.3 Bioaccumulative potential** No data available

**12.4 Mobility in soil** No data available

**12.5 Other adverse effects** No other known adverse effects.



Do not allow the undiluted product or large quantities of it to reach ground water, water course or sewage system.

### 13. DISPOSAL CONSIDERATIONS

#### Disposal methods to employ

Wastes, residues and contaminated packaging should be collected, eliminated and/ or recovered by a licensed company of waste collection and management/ recovery.

It is appropriate to not eliminate waste by discharge into sewers.

No other specific recommendations for elimination.

### 14. TRANSPORT INFORMATION

Not regulated

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2015- IMDG 2014 – ICAO/IATA 2015).

### 15. REGULATORY INFORMATION

#### National and/or regional regulatory information of the chemical or mixtures

##### Inventories:

No data available

##### NTP, IARC, OSHA:

No substances in the IARC List

### 16. OTHER INFORMATION

#### Indications on the revision

First edition: 26/10/2018

#### Abbreviations and acronyms used

ADN / ADNR: Regulations concerning the transport of dangerous substances in barges on the waterways. ADR / RID: European Agreement concerning the International Carriage of Dangerous Goods by Road / Regulations concerning the international carriage of dangerous goods by rail. CAS: Chemical Abstract Service Number. IATA: International Air Transport Association. IMDG: International Maritime Dangerous Goods Code. UN number: United Nations number. No EC: European Commission Number. VPvB: very persistent and very bioaccumulative substances.

#### Methods of evaluation for the classification of mixtures

The classification of the mixture was set based on the GHS 5<sup>th</sup> edition.

#### Other information

The information in this document are indicative; they are based on knowledge of the PHYTOSYNTHESE state for the product at the date indicated above. They apply to the product unaltered, and conforming to specifications from PHYTOSYNTHESE.

In case of combinations of mixtures or product transformation, it is the sole responsibility of the user to

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*In accordance with applicable US legislation (HCS 2012)*

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