

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

#### 1.1. Product identifier

Product form : Mixture  
 Name : PHYSIOSTART  
 Product code : PHYSIOSTART

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use, Industrial use  
 Use of the substance/mixture : Fertilizer  
 Function or use category : Fertilisers

Title	Use descriptors
Fertilizers Professionnal Use (Source : Components' Chemical Safety Report)	SU1, SU22, PC12, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC19, ERC8b, ERC8d, ERC8e

Full text of use descriptors : see section 16.

##### 1.2.2. Uses advised against

No additional information available

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

##### Supplier

TIMAC AGRO USA, INC  
 P.O. Box 888 - Route 724 & I-176  
 READING - USA  
 T 1-800-545-5474  
[info-fds@roullier.com](mailto:info-fds@roullier.com)

##### Manufacturer

TIMAC AGRO  
 27 avenue Franklin Roosevelt  
 35408 Saint-Malo cedex - FRANCE  
 T +33 2 99 20 65 20  
[info-fds@roullier.com](mailto:info-fds@roullier.com) - [www.roullier.com](http://www.roullier.com)

#### 1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number
Americas	3E (N°24/24)		+1-760-476-3962 (Access code : 333021)
USA	USA POISON CONTROL CENTER (24h/d, 7d/w)		1-800-222-1222

### SECTION 2: Hazards identification

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

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Eye Dam. 1 : H318  
 Aquatic Chronic 3 : H412

Full text of H-phrases: see section 16

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) : Danger  
 Hazard statements (CLP) : H318 - Causes serious eye damage  
 H412 - Harmful to aquatic life with long lasting effects  
 Precautionary statements (CLP) : P280 - Wear protective gloves/protective clothing/eye protection/face protection  
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P310 - Immediately call a POISON CENTER or doctor/physician  
 P501 - Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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according to Regulation (EC) No. 453/2010

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Reaction mass of calcium bis (dihydrogenorthophosphate) and calcium hydrogenorthophosphate	(EC no) 914-172-8 (REACH-no) 01-2119686864-19	>= 3	Xi; R41	Eye Dam. 1, H318
Zinc oxide	(CAS No) 1314-13-2 (EC no) 215-222-5 (EC index no) 030-013-00-7 (REACH-no) 01-2119463881-32	<= 2,49	N; R50/53	Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of R- and H-phrases: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
- First-aid measures after skin contact : Wash with plenty of water. If on skin and if skin irritation occurs, seek medical advice and attention.
- First-aid measures after eye contact : Rinse immediately and thoroughly with clean water during at least 15 minutes, keeping the eyes wide open. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. If you feel unwell, seek medical advice.

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

Symptoms/injuries : See 2.1 / 2.3.

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

No data / information available.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Water spray. AFFF foam. CO2.
- Unsuitable extinguishing media : None known.

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

Fire hazard : Non combustible. By thermal decomposition, product may emit oxides of sulfur, ammonia, oxides of phosphorus (eg P2O5).

### 5.3. Advice for firefighters

- Protection during firefighting : Do not enter or remain in the danger zone without protection clothing. Wearing autonomous, insulating breathing equipment is recommended when entering the danger zone.
- Other information : Avoid pouring fire water down the drains.

## SECTION 6: Accidental release measures

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

General measures : Avoid dust production. Avoid contact with skin and eyes. Concerning personal protective equipment to use, see item 8.

#### 6.1.1. For non-emergency personnel

No additional information available

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Prevent soil and water pollution. Do not flush down sewers.

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

Methods for cleaning up : Collect spillage. Carefully collect remainder. Scoop absorbed substance into closing containers. This material and its container must be disposed of in a safe way, and as per local legislation. Clean contaminated surfaces with an excess of water. Do not discharge waste into drains.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Do not eat, drink or smoke when using this product. Compliance with applicable regulations. Provide adequate ventilation to minimize dust concentrations. Avoid contact with skin and eyes.

Hygiene measures : Always wash hands after handling the product.

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

Storage conditions : Keep in original containers.

Storage area : Store in a dry area. Store at ambient temperature.

### 7.3. Specific end use(s)

SECTION 1.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

PHYSIOSTART	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	3,1 mg/m <sup>3</sup> Zinc oxide
Long-term - systemic effects, inhalation	4,07 mg/m <sup>3</sup> Reaction mass of calcium bis(dihydrogenorthophosphate) and calcium hydrogenorthophosphate
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	1,5 mg/m <sup>3</sup> Zinc oxide
Long-term - systemic effects, inhalation	3,04 mg/m <sup>3</sup> Reaction mass of calcium bis(dihydrogenorthophosphate) and calcium hydrogenorthophosphate
PNEC (Water)	
PNEC aqua (freshwater)	0,0256 mg/l Zinc oxide
PNEC aqua (marine water)	0,0076 mg/l Zinc oxide
PNEC (Sediment)	
PNEC sediment (freshwater)	146 mg/kg Zinc oxide
PNEC sediment (marine water)	70,3 mg/kg Zinc oxide
PNEC (Soil)	
PNEC soil	44,3 mg/kg Zinc oxide
PNEC (STP)	
PNEC sewage treatment plant	50 mg/l Reaction mass of calcium bis(dihydrogenorthophosphate) and calcium hydrogenorthophosphate

Source : Components Chemical Safety Report

Source : safety data sheet of supplier

### 8.2. Exposure controls

Personal protective equipment : Dust production: dust mask with filter type P2. Safety glasses.

Hand protection : In case of repeated or prolonged contact wear gloves. (according to standard EN 374)

Eye protection : Safety glasses with side shields. (according to standard EN 166)

Skin and body protection : Skin protection appropriate to the conditions of use should be provided

Respiratory protection : Where excessive dust may result, wear approved mask. Dust / anti-aerosol filter type P2 (according to standard EN 143)



Other information : Wash hands after working with the product. Do not drink, eat or smoke in the workplace. If on skin, take off contaminated clothing.

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### SECTION 9: Physical and chemical properties

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

Physical state	: Solid
Colour	: Off white.
Odour	: odourless.
Odour threshold	: Not applicable
pH	: 5 - 8 - pH value in distilled water
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: > 133 °C
Freezing point	: No data available
Boiling point	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not flammable
Vapour pressure	: Not determined
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 880 kg/m <sup>3</sup>
Solubility	: Water: Soluble
Log Pow	: No study has been carried out for the moment on this mixture.
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosive properties	: If significant formation of dust, dust-air mixture may be flammable/explosive.
Oxidising properties	: Non-oxidizing.
Explosive limits	: Not determined

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No additional information available

#### 10.2. Chemical stability

Stable under normal conditions of use.

#### 10.3. Possibility of hazardous reactions

No data / information available. No study has been carried out for the moment on this mixture.

#### 10.4. Conditions to avoid

Heat.

#### 10.5. Incompatible materials

Alkalis, strong acids, copper and other alloys.

#### 10.6. Hazardous decomposition products

In the event of fire: see chapter 5.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : No study has been carried out for the moment on this mixture.

<b>Zinc oxide (1314-13-2)</b>	
LD50 oral rat	> 5000 mg/kg (OECD 401 method)
LC50 inhalation rat (mg/l)	(4h) > 5700 mg/m <sup>3</sup> OECD 403
<b>Reaction mass of calcium bis (dihydrogenorthophosphate) and calcium hydrogenorthophosphate</b>	
LD50 oral rat	> 2000 mg/kg (OECD 420 method)
LD50 dermal rat	> 2000 mg/kg EPA OPPTS 870.1200
LC50 inhalation rat (mg/l)	> 2,6 mg/l/4h OECD 403

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Skin corrosion/irritation	: Not classified Prolonged or repeated skin contact may cause irritation, contact dermatitis. pH: 5 - 8 - pH value in distilled water
Serious eye damage/irritation	: Causes serious eye damage. pH: 5 - 8 - pH value in distilled water
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met) No study has been carried out for the moment on this mixture.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified

### Reaction mass of calcium bis (dihydrogenorthophosphate) and calcium hydrogenorthophosphate

NOAEL (oral, rat)	> 500 mg/kg bodyweight
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified By analogy on the basis of its components, the product should not be classified as harmful if swallowed.
Other information	: Source : safety data sheet of supplier.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: No study has been carried out for the moment on this mixture. Avoid discharging large quantities of product into the environment.
Ecology - water	: Harmful to aquatic life with long lasting effects.

### Zinc oxide (1314-13-2)

LC50 fish 1	96h 1,1 - 1,5 ppm Oncorhynchus mykiss (Rainbow trout)
EC50 other aquatic organisms 1	72h 0,17 mg/l algae
NOEC (chronic)	0,017 mg/l algae

### Reaction mass of calcium bis (dihydrogenorthophosphate) and calcium hydrogenorthophosphate

LC50 fish 1	> 100 mg/l 96h (Onchynchus mykiss)
EC50 Daphnia 1	> 100 mg/l 48h
ErC50 (algae)	> 100 mg/l 72h (Desmodesmus subpicatus)
Source	Components Chemical Safety Report
Source	safety data sheet of supplier

### 12.2. Persistence and degradability

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Persistence and degradability	No study has been carried out for the moment on this mixture.
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#### Zinc oxide (1314-13-2)

Persistence and degradability	No data available.
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### Reaction mass of calcium bis (dihydrogenorthophosphate) and calcium hydrogenorthophosphate

Persistence and degradability	Not applicable.
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### 12.3. Bioaccumulative potential

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Log Pow	No study has been carried out for the moment on this mixture.
Bioaccumulative potential	No study has been carried out for the moment on this mixture.

#### Zinc oxide (1314-13-2)

Log Pow	2,2
Bioaccumulative potential	Low bioaccumulation potential.

### Reaction mass of calcium bis (dihydrogenorthophosphate) and calcium hydrogenorthophosphate

Log Pow	Not applicable
Bioaccumulative potential	Bioaccumulation unlikely.

### 12.4. Mobility in soil

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Ecology - soil	The main components of the mixture are completely soluble in water.
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<b>Zinc oxide (1314-13-2)</b>	
Ecology - soil	Material nearly insoluble in water.

<b>Reaction mass of calcium bis (dihydrogenorthophosphate) and calcium hydrogenorthophosphate</b>	
Mobility in soil	No data available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Other adverse effects : No data available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose in a safe manner in accordance with local/national regulations.  
Additional information : Unused amounts of the product must be considered to be dangerous waste products. Disposal by incineration or reuse of the material through recycling after cleansing of product residues. Recycling or incineration by an approved company.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

Not regulated for transport

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable  
Proper Shipping Name (IMDG) : Not applicable  
Proper Shipping Name (IATA) : Not applicable  
Proper Shipping Name (ADN) : Not applicable  
Proper Shipping Name (RID) : Not applicable

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : Not applicable

#### IMDG

Transport hazard class(es) (IMDG) : Not applicable

#### IATA

Transport hazard class(es) (IATA) : Not applicable

#### ADN

Transport hazard class(es) (ADN) : Not applicable

#### RID

Transport hazard class(es) (RID) : Not applicable

### 14.4. Packing group

Packing group (ADR) : Not applicable  
Packing group (IMDG) : Not applicable  
Packing group (IATA) : Not applicable  
Packing group (ADN) : Not applicable  
Packing group (RID) : Not applicable

### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

No data available

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### - Transport by sea

No data available

### - Air transport

No data available

### - Inland waterway transport

Not subject to ADN : No

### - Rail transport

Carriage prohibited (RID) : No

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances.

Other information, restriction and prohibition regulations : All the constituents of this preparation are registered in the EINECS inventory or in the ELINCS list.

#### 15.1.2. National regulations

Ensure all national/local regulations are observed

### 15.2. Chemical safety assessment

**For the following substances of this mixture a chemical safety assessment has been carried out**

Reaction mass of calcium bis (dihydrogenorthophosphate) and calcium hydrogenorthophosphate  
Zinc oxide

## SECTION 16: Other information

Indication of changes:

9.1		Modified	
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Data sources : Section 1.2, 8.1, 11 & 12 are based on components' Chemical Safety Report and/or datas from components' supplier.

Other information : according to Regulation (EC) No. 1907/2006 (REACH).

Full text of R-, H- and EUH-phrases:

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H318	Causes serious eye damage
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
ERC8b	Wide dispersive indoor use of reactive substances in open systems
ERC8d	Wide dispersive outdoor use of processing aids in open systems
ERC8e	Wide dispersive outdoor use of reactive substances in open systems
PC12	Fertilizers
PROC19	Hand-mixing with intimate contact and only PPE available
PROC2	Use in closed, continuous process with occasional controlled exposure
PROC3	Use in closed batch process (synthesis or formulation)
PROC4	Use in batch and other process (synthesis) where opportunity for exposure arises
PROC5	Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
PROC8b	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities

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PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
SU1	Agriculture, forestry, fishery
SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

SDS EU (REACH Annex II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*