

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

1.1. Product identifier

Product form : Mixture
 Name : PHYSIOCAL
 Product code : PHYSIOCAL

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

1.2.1. Relevant identified uses

No additional information available

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

Manufacturer

TIMAC AGRO
 27 avenue Franklin Roosevelt
 35408 Saint-Malo cedex - FRANCE
 T +33 2 99 20 65 20
info-fds@roullier.com - www.roullier.com

1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number
Europe/Middle-East/Africa	3E (24h/7d)		+1-760-476-3961 (Access code : 333021)
UNITED KINGDOM	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	0870 243 2241
USA	USA POISON CONTROL CENTER (24h/7d)		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]

Aquatic Chronic 3 H412

Full text of H-statements: see section 16

2.2. Label elements

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

Signal word (CLP) : -
 Hazard statements (CLP) : H412 - Harmful to aquatic life with long lasting effects
 Precautionary statements (CLP) : 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.

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]
Zinc oxide	(CAS No) 1314-13-2 (EC no) 215-222-5 (EC index no) 030-013-00-7 (REACH-no) 01-2119463881-32	0,25 - 2,49	N; R50/53	Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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according to Regulation (EU) No. 2015/830

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

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Move to fresh air in case of accidental inhalation.
- First-aid measures after skin contact : After contact with skin, wash immediately with plenty of water and soap. If irritation persists, consult a doctor.
- First-aid measures after eye contact : Rinse immediately and thoroughly with clean water during at least 15 minutes, keeping the eyes wide open. Consult an eye specialist if an irritation appears.
- 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

No additional information available

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam, powder, carbon dioxide (CO₂), water spray.
- Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Non combustible.

5.3. Advice for firefighters

- 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 contact with skin and eyes. See chapter 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

Do not allow into drains or water courses.

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 the waste into the drain.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Do not allow into drains or water courses.
- Precautions for safe handling : Handle in accordance with good industrial hygiene and safety practice.
- Hygiene measures : Do not eat, drink or smoke in areas where product is used.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a dry place. Store at ambient temperature.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Zinc oxide (1314-13-2)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	3,1 mg/m ³ Zinc oxide

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Zinc oxide (1314-13-2)	
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	1,5 mg/m ³ Zinc oxide
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 dwt Zinc oxide
PNEC sediment (marine water)	70,3 mg/kg dwt Zinc oxide
PNEC (Soil)	
PNEC soil	44,3 mg/kg dwt Zinc oxide
PNEC (STP)	
PNEC sewage treatment plant	0,0647 mg/l Zinc oxide

8.2. Exposure controls

Hand protection	: butyl rubber gloves. Latex gloves
Eye protection	: Safety glasses
Skin and body protection	: No special clothing/skin protection equipment is recommended under normal conditions of use
Respiratory protection	: No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation
Other information	: Always wash hands after handling the product. If on skin, take off contaminated clothing. Do not eat, drink or smoke in areas where product is used.

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	: No data available
pH	: 7 - 9 Aqueous solution
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: > 780 °C
Freezing point	: No data available
Boiling point	: Not applicable
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 900 - 1100 kg/m ³
Solubility	: No data available
Log Pow	: Not determined
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Explosive Not classified.
Oxidising properties	: Non-oxidizing.
Explosive limits	: Not applicable Not applicable

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.

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10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

None if handled and used in compliance.

10.5. Incompatible materials

No additional information available

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 : Not classified (Based on available data, the classification criteria are not met)
No study has been carried out for the moment on this mixture.

Zinc oxide (1314-13-2)	
LD50 oral rat	> 5000 mg/kg (OECD 401 method)
LC50 inhalation rat (mg/l)	(4h) > 5700 mg/m ³ OECD 403

Skin corrosion/irritation : May cause slight temporary irritation
pH: 7 - 9 Aqueous solution

Serious eye damage/irritation : redness, pain, mild eye irritation
No study has been carried out for the moment on this mixture.
pH: 7 - 9 Aqueous solution

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 (Based on available data, the classification criteria are not met)
No study has been carried out for the moment on this mixture.

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
No study has been carried out for the moment on this mixture.

Specific target organ toxicity (single exposure) : Not classified (Based on available data, the classification criteria are not met)

Specific target organ toxicity (repeated exposure) : Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)
No study has been carried out for the moment on this mixture.

SECTION 12: Ecological information

12.1. Toxicity

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

12.2. Persistence and degradability

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Persistence and degradability	No study has been carried out for the moment on this mixture.

Zinc oxide (1314-13-2)	
Persistence and degradability	No data available.

12.3. Bioaccumulative potential

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Log Pow	Not determined
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.

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12.4. Mobility in soil

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Ecology - soil : No study has been carried out for the moment on this mixture.

Zinc oxide (1314-13-2)

Ecology - soil : Material nearly insoluble in water.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information 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 : Disposal by incineration or reuse of the material through recycling after cleansing of product residues.
Ecology - waste materials : Do not allow to enter drains or water courses.

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

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

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

Zinc oxide

SECTION 16: Other information

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

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

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
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

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