

# Cliniphos

## Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 10 February 2012

Revision date: 23 March 2015

Version: 2.0

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Cliniphos

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

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : The removal of milkstone in dairy equipment

##### 1.2.2. Uses advised against

No additional information available

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

GEA Farm Technologies (UK) Ltd  
Wylie Works, Watery Lane, Bishopstrow, Warminster, Wiltshire BA12 9HT England

T: +44 (0) 1985 216 444

F: +44 (0) 1985 216 692

E-mail: info.agroserve@geagroup.com

#### 1.4. Emergency telephone number

Emergency number : +44 (0) 870 190 6777 (24 hours, 7 days)

### SECTION 2: Hazards identification

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

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

Met. Corr. 1 H290

Skin Corr. 1B H314

Full text of H-phrases: see section 16

##### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

C; R34

Full text of R-phrases: see section 16

##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) : Danger

Hazardous ingredients : Phosphoric acid, Nitric acid

Hazard statements (CLP) : H290 - May be corrosive to metals  
H314 - Causes severe skin burns and eye damage

Precautionary statements (CLP) : P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
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 doctor  
P501 - Dispose of contents/container to an authorised waste collection point

#### 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

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This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Other hazards not contributing to the classification : Inhalation of vapours may cause respiratory irritation.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Phosphoric acid	(CAS No) 7664-38-2 (EC No.) 231-633-2 (EC index No.) 015-011-00-6	26-29	C; R34
Nitric acid	(CAS No) 7697-37-2 (EC No.) 231-714-2 (EC index No.) 007-004-00-1	12-14	O; R8 C; R35

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Phosphoric acid	(CAS No) 7664-38-2 (EC No.) 231-633-2 (EC index No.) 015-011-00-6	26-29	Met. Corr. 1, H290 Skin Corr. 1B, H314
Nitric acid	(CAS No) 7697-37-2 (EC No.) 231-714-2 (EC index No.) 007-004-00-1	12-14	Ox. Liq. 3, H272 Met. Corr. 1, H290 Skin Corr. 1A, H314

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 general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, trained personnel should give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Obtain immediate medical attention.
First-aid measures after skin contact	: Immediately remove contaminated clothing or footwear. Rinse skin with plenty of water or shower. Obtain immediate medical attention.
First-aid measures after eye contact	: In case of eye contact, immediately rinse with clean water for 10-15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain immediate medical attention.
First-aid measures after ingestion	: Do NOT induce vomiting. Rinse mouth. Give 100 - 200 ml of water to drink. Do not give an unconscious person anything to drink. Obtain immediate medical attention.

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

Symptoms/injuries after inhalation	: Inhalation of vapours may cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes burns.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Corrosive. Severe irritation or burns to the mouth, throat, oesophagus, and stomach.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: None known.

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

Fire hazard	: Not flammable.
Hazardous decomposition products in case of fire	: Fire may produce irritating, corrosive and/or toxic gases. Phosphorus oxides. Nitrogen oxides.

#### 5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid fire-fighting water entering the environment.
Protection during firefighting	: Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

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### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel. Ensure adequate ventilation.

##### 6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing and eye or face protection.

Emergency procedures : Ensure adequate ventilation. Avoid contact with skin and eyes. Avoid inhalation of vapours.

#### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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

Methods for cleaning up : Dike far ahead of liquid spill for later disposal. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wash spill area with soapy water. Washings must be prevented from entering surface water drains.

#### 6.4. Reference to other sections

SECTION 8: Exposure controls/personal protection. SECTION 13: Disposal considerations.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Provide adequate ventilation, including appropriate local extraction, to ensure that occupational exposure limits are not exceeded. Do not breathe vapours. Use only outdoors or in a well-ventilated area. Avoid contact with skin, eyes and clothing. Wear suitable protective clothing, gloves and eye or face protection.

Hygiene measures : Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep only in the original container. Store away from. Incompatible materials. Heat sources. Direct sunlight. Keep away from food, drink and animal feeding stuffs.

Incompatible materials : Alkalis. Hypochlorite solutions. Sulfides. Cyanides. Metals. Carbonates. Combustible materials.

#### 7.3. Specific end use(s)

The removal of milkstone in dairy equipment.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Phosphoric acid (7664-38-2)		
EU	Local name	Orthophosphoric acid
EU	IOELV TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
EU	IOELV STEL (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
United Kingdom	Local name	Orthophosphoric acid
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Nitric acid (7697-37-2)		
United Kingdom	Local name	Nitric acid
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	2.6 mg/m <sup>3</sup>
United Kingdom	WEL STEL (ppm)	1 ppm

#### 8.2. Exposure controls

Appropriate engineering controls : Provide adequate ventilation, including appropriate local extraction, to ensure that occupational exposure limits are not exceeded. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear rubber gloves. Standard EN 374 - Protective gloves against chemicals. Gloves should be removed and replaced if there are any signs of degradation or breakthrough.

Eye protection : Chemical goggles or face shield. Standard EN 166 - Personal eye-protection.

Skin and body protection : Acid-resistant clothing. Rubber boots.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Standard EN 149 – Respiratory protective devices.

Thermal hazard protection : Not required for normal conditions of use.

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Environmental exposure controls	: Avoid release to the environment.
Other information	: Do not eat, drink or smoke during use. Handle in accordance with good industrial hygiene and safety procedures.

### SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Appearance	: Aqueous solution.
Colour	: Clear. Colourless.
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Miscible with water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Not explosive.
Oxidising properties	: Not oxidising.
Explosive limits	: No data available

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Reacts with : Alkalis. Hypochlorite solutions. Sulfides. Cyanides. Metals. Carbonates.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

Reacts with hypochlorite solutions releasing toxic and corrosive gases (chlorine). Reacts with most metals liberating hydrogen, an extremely flammable gas. Reaction with sulfides and cyanides will produce toxic gases.

#### 10.4. Conditions to avoid

Extremely high or low temperatures.

#### 10.5. Incompatible materials

Alkalis. Hypochlorite solutions. Sulfides. Cyanides. metals. Carbonates. combustible materials.

#### 10.6. Hazardous decomposition products

Phosphorus oxides. Nitrogen oxides.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity	: Not classified
	Based on available data, the classification criteria are not met

Phosphoric acid (7664-38-2)	
LD50 oral rat	1530 mg/kg
LD50 dermal rabbit	2730 mg/kg
LC50 inhalation rat (mg/l)	> 850 mg/l 1 h

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<b>Nitric acid (7697-37-2)</b>	
LC50 inhalation rat (mg/l)	130 mg/m <sup>3</sup> 4h
Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Serious eye damage, category 1, implicit
Respiratory or skin sensitisation	: Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
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
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
Potential adverse human health effects and symptoms	: Causes severe skin burns and eye damage. Inhalation of vapours may cause respiratory irritation. May cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water : Not classified, however the product is likely to be hazardous to aquatic life due to extreme pH. Acidity may be reduced by natural water hardness.

### Phosphoric acid (7664-38-2)

LC50 fish	3 - 3.5 mg/l 96 h - <i>Gambusia affinis</i>
EC50 Daphnia	4.6 mg/l 12 h - <i>Daphnia magna</i>

### Nitric acid (7697-37-2)

LC50 fish	72 mg/l 96 h - <i>Gambusia affinis</i>
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### 12.2. Persistence and degradability

#### Cliniphos

Persistence and degradability	Phosphates may persist.
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### 12.3. Bioaccumulative potential

#### Nitric acid (7697-37-2)

Log Pow	0
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### 12.4. Mobility in soil

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Ecology - soil	Miscible with water.
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### 12.5. Results of PBT and vPvB assessment

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This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### 12.6. Other adverse effects

: Avoid release to the environment

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of this material and its container at hazardous or special waste collection point.  
Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Additional information : Handle empty containers with care.

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### SECTION 14: Transport information

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

#### 14.1. UN number

UN-No. (ADR) : 3264  
UN-No.(IATA) : 3264  
UN-No. (IMDG) : 3264

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR/RID) : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
Proper Shipping Name (IATA) : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
Proper Shipping Name (IMDG) : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
:  
Transport document description (ADR) : UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (CONTAINS ; Phosphoric acid(7664-38-2) ; Nitric acid(7697-37-2)), 8, II

#### 14.3. Transport hazard class(es)

Class (ADR/RID) : 8  
Class (IATA) : 8  
Class (IMDG) : 8  
Hazard labels (ADR/RID) : 8



Hazard labels (IATA) : 8



Danger labels (IMDG) : 8



#### 14.4. Packing group

Packing group (ADR/RID) : II  
Packing group (IATA) : II  
Packing group (IMDG) : II

#### 14.5. Environmental hazards

Other information : No supplementary information available.

#### 14.6. Special precautions for user

##### 14.6.1. Overland transport

No additional information available

##### 14.6.2. Transport by sea

No additional information available

##### 14.6.3. Air transport

No additional information available

#### 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

Authorisations and/or restrictions on use (Annex XVII):

3.b. Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10

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Contains no substance on the REACH candidate list

### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

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

Met. Corr. 1	Corrosive to metals, Category 1
Ox. Liq. 3	Oxidising Liquids, Category 3
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H272	May intensify fire; oxidiser
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
R34	Causes burns
R35	Causes severe burns
R8	Contact with combustible material may cause fire
C	Corrosive
O	Oxidising

NCEC SDS EU (REACH ANNEX II)

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