

## Buffered Lactic Acid (High pH)

REVISION DATE 30/06/08  
REF. SD4000/2008-03

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

<b>Product name</b>	PURAC <sup>®</sup> BF S/30 PURAC <sup>®</sup> BF S/30 HiPure PURAC <sup>®</sup> BF S/35 PURAC <sup>®</sup> BF S/35 HiPure PURAC <sup>®</sup> BF S/36 PURAC <sup>®</sup> BF P/41	
<b>Use of the Preparation</b>	Food additive, Specialty chemical	
<b>Supplier</b>	PURAC biochem Arkelsedijk 46 NL-4206 AC Gorinchem The Netherlands	PURAC bioquimica Gran Vial 19 -25 08160 Montmelo-Barcelona Spain
<b>Telephone</b>	+31 183 695695	+34 93 568 6300
<b>Fax</b>	+31 183 695604	+34 93 568 3955
<b>Emergency telephone</b>	+31 183 695695	+34 93 568 6300 (Ext 222)
<b># Supplier</b>	PBR sínteses Av. Rui Barbosa, 521 Campos dos Goytacazes-RJ CEP 28013-000 Brazil	PURAC Thailand 3 Moo 2 – Ásia Industrial Estate T. Banchang, A. Banchang Rayong 21130 Thailand
<b>Telephone</b>	+55 22 2737 7200	+66 (38) 698 800
<b>Fax</b>	+55 22 2737 7210	+66 (38) 698 801
<b>Emergency telephone</b>	+55 22 2737 7200	+66 (38) 698 800

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

<b>Chemical name of the substance</b>	(S)-Lactic Acid with Sodium (S)-Lactate		
<b>Synonyms</b>	Buffered L(+)-Lactic Acid Buffered 2-hydroxy propionic acid Buffered 2-hydroxy propanoic acid		
<b>Components</b>	<b>EC-No.</b>	<b>CAS-No.</b>	<b>Weight, %</b>
(S)-Lactic Acid	201-196-2	79-33-4	18 - 61
Sodium (S)-Lactate	212-762-3	867-56-1	18 - 39
or			
Potassium (S)-Lactate	288-752-8	996-31-6	45-47

### 3. HAZARDS IDENTIFICATION

<b>Most important hazards</b>	May cause eye irritation with susceptible persons.
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## SAFETY DATA SHEET

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#### 4. FIRST AID MEASURES

<b>General advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	Move to fresh air.
<b>Skin contact</b>	Wash off with plenty of water.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.
<b>Ingestion</b>	Drink plenty of water.
<b>Major effects of exposure</b>	May cause eye irritation with susceptible persons.

#### 5. FIRE-FIGHTING MEASURES

<b>Suitable extinguishing media</b>	Water, carbon dioxide (CO <sub>2</sub> ), foam.
<b>Extinguishing media which must not be used for safety reasons</b>	None.
<b>Specific hazards</b>	Thermal decomposition can lead to release of irritating gases and vapors.
<b>Special protective equipment for firefighters</b>	None.
<b>Specific methods</b>	Standard procedure for chemical fires.

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Avoid contact with eyes.
<b>Environmental precautions</b>	No special environmental precautions required.
<b>Methods for cleaning up</b>	Neutralize with lime milk or soda ash and flush with plenty of water.

#### 7. HANDLING AND STORAGE

<b>Handling Technical measures/ Precautions Safe handling advice</b>	Avoid temperatures above 392°F (200°C). Handle in accordance with good industrial hygiene and safety practice.
<b>Storage Technical measures/ Storage conditions</b>	Keep tightly closed in a dry place. Avoid long storage times.
<b>Packaging material</b>	Stainless Steel or plastic containers.

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### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Engineering measures to reduce exposure</b>	Insure adequate ventilation, especially in confined areas.
<b>Control parameters</b>	None.
<b>Personal protection equipment</b>	
<b>Respiratory protection</b>	Not applicable.
<b>Hand protection</b>	Not applicable.
<b>Eye protection</b>	Safety glasses.
<b>Skin and body protection</b>	Not applicable.
<b>Hygiene measures</b>	Handle in accordance with good industrial hygiene and safety practice.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Form</b>	liquid
<b>Color</b>	light yellow
<b>Odor</b>	characteristic
<b>pH</b>	2.8 - 5.0 (10% aqueous solution) @ 77°F (25°C)
<b>Molecular Weight</b>	not applicable
<b>Boiling point/range</b>	221-239°F (105 - 115°C)
<b>Decomposition temperature</b>	>392°F(200°C)
<b>Autoignition temperature</b>	none
<b>Flash point</b>	not applicable
<b>Explosion limits</b>	not applicable
<b>Density</b>	1200 - 1260 kg/m <sup>3</sup> (73-84% solution)
<b>Solubility</b>	Water solubility: completely soluble

### 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable at normal conditions.
<b>Conditions to avoid</b>	Avoid temperatures above >392°F(200°C).
<b>Materials to avoid</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Thermal decomposition can lead to release of irritating gases and vapors.

### 11. TOXICOLOGICAL INFORMATION

<b>Acute toxicity</b>	LD50/oral/rat = 3730 mg /kg (Lactic Acid). LD50/intra peritoneal/rat = 2000 mg/kg (Sodium Lactate). No data available, (Potassium Lactate).
<b>Local effects</b>	May cause eye irritation with susceptible persons.
<b>Specific effects</b>	Based on tests with L(+)-Lactic acid and its salts, there is no evidence to suggest carcinogenic nor mutagenic properties from lactic acid itself nor from the lactate portion of its metal salts.
<b>Further information</b>	As an important metabolite in man, animals and plants, it is naturally formed and metabolized.

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<b>Mobility</b>	Completely soluble in water.
<b>Persistence / degradability</b>	Taking into consideration the properties of the components, the product is estimated to be readily biodegradable according to OECD classification.
<b>Bioaccumulation</b>	None.
<b>Ecotoxicity</b>	Ecological injuries are not known or expected under normal use.

**13. DISPOSAL CONSIDERATIONS**

<b>Waste from residues / unused products</b>	Can be disposed as waste water, when in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations.
<b>Contaminated packaging</b>	Clean container with water. Empty containers should be taken for local recycling, recovery or waste disposal.

**14. TRANSPORT INFORMATION**

Not classified as dangerous in the meaning of transport regulations.

**15. REGULATORY INFORMATION**

<b>US Regulations</b>	TSCA Inventory Status: Y (Lactic Acid, Calcium Lactate)
	SARA III: N
	California Proposition 65: N
	Carcinogenic status: OSHA: N. NTP: N, IARC: N
	FDA: GRAS

Lactic Acid adduct with Sodium Lactate/ Potassium Lactate, USA FDA / GRAS Status, Japan JSFA Registered.

**EU Classification**

The preparation does not need to be labelled in accordance with Directive 1999/45/EC, nor to Annex VI 67/548/EEC.

EC Food additive (Lactic Acid E 270, Sodium Lactate E325, Potassium Lactate E 326).

German Water Hazard Class (WGK): 1

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### 16. OTHER INFORMATION

**NFPA Ratings (Scale 0-4):** 0(health)-0(flammability)-0(reactivity)  
**HMIS Rating** 0(health)-0(flammability)-0(reactivity)-A (protective equipment)

EU Food additive (Lactic Acid E 270, Sodium Lactate E325, Potassium Lactate E 326)

Further information on the safety assessment of lactic acid and its salts can be obtained in a CFTA Report of June 6th 1997.

This information only concerns the above mentioned product and is not valid if the product is used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.

# Indicates updated section.

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