



Sales and Marketing of Natural Bioicide Formulations

NATRAPHASE™ 30P

Food Processing Aid

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FOOD PROCESSING AID

NATRAPHASE™ 30P

PRODUCT DESCRIPTION AND SPECIFICATION

Description: NATRAPHASE™ 30P is free flowing white to cream coloured, natural acidulant powder which has been formulated specifically to preserve and extend shelf life. NATRAPHASE is GRAS in the USA and approved for food applications in Canada, Mexico and the European Union as a pH control agent, leavening agent and/or processing aid.

Applications:

- Dressings, sauces, confectionery fillings, toppings, beverages, cheeses and syrups.
- The low sour intensity works well in chocolate, vanilla, banana, coconut, caramel and toffee.
- **NATRAPHASE™ 30P** brings out a more ripe fruit flavour like peach, pear and strawberry.

Functionality:

- Lower pH
- Anti microbial
- Preserve and extend shelf life.
- Enhance flavour
- Reduce salt levels as **NATRAPHASE™30P** will enhance the flavour of salt.
- Increases perceived sweetness – a 15% sweetener reduction can be achieved.

Potential benefits:

- Consumer friendly alternative to traditional sulphites.
- Improvement of food products by significantly “slowing up” the degradation process and hence improving the shelf life of produce.
- Consistent product quality from batch to batch. Quality improvements include improvements in texture, colour and flavour and greater nutrient retention.
- Low usage rates provide significant cost savings. Process improvements using **NATRAPHASE™ 30P** include energy savings, increased production and lower equipment and packaging costs.
- Products with a pH greater than 4.60 require retort/aseptic processing. The high temperatures required for retort can alter texture, taste and colour of food. Critical factors for retort processing are time, temperature and pH. Decreasing the pH level with **NATRAPHASE™ 30P** allows for less processing time and lower temperatures to be used without compromising microbial stability or flavour.
- By using **NATRAPHASE™ 30P** it is also feasible to convert a retort aseptic process to a hot fill process as long as the pH is less than 4.60

Usage levels: We generally suggest a concentration of 0.10%. Less **NATRAPHASE™30P** is required to lower pH compared to other acidulants like Citric Acid. For example to establish a standard pH of 3.20 in a beverage requires only 0.06% of NATRAPHASE™30P compared to 0.12% using Citric Acid to achieve the same pH level.

Shelf life: The shelf life of **NATRAPHASE™ 30P** is one (1) year from packaging date (**unopened**). Store tightly closed.

Packaging: **NATRAPHASE™ 30P** is available in 25kg poly line bags and 1000kg Polythene bags. Or alternatively is also available as a 30% liquid in 1000 kg Intermediate Bulk Containers (IBC). Tanker deliveries can also be made available.

Safety and Handling: A materials Health and Safety Data Sheet is available on pages 4 - 5

MATERIAL SAFETY DATA SHEET

NATRApHASE™ 30P

I. PRODUCT DESCRIPTION AND SPECIFICATION

Description: NATRApHASE™ 30P is a white to cream, natural acidulant free flowing powder.

Specifications:

Appearance:	White to cream
Taste:	Weak Acidic
Odour:	Fresh
Solubility:	1080gm/L @ 20°C
Stability:	Stable.

II. SAFETY INFORMATION

1. IDENTIFICATION

Name: NATRApHASE™ 30P

Product Code: NPNPP025, (Powder=25kg poly lined bag), NPNPH1000 (1000kg Polythene bag)

Supplied by: Natural Preserves Limited
Unit 10, Business Centre
Eanam Wharf
Blackburn
Lancashire BB1 5BL
Telephone: +44 (0)1254 678703 Fax: +44 (0)1254 662 590
E-mail: info@naturalpreserves.co.uk

2. COMPOSITION Acidified Sodium Chloride

3. HAZARD IDENTIFICATION NATRApHASE™ 30P is classified as very low hazard. There are no known health hazards associated with NATRApHASE™ 30P when used **as recommended**.

European Union Classification under Dangerous Substances (Annex 1)

- EC No. 231-665-7
- Labels: Xi (irritant)
- Risk Phrases: R41
- Safety Phrases: S(2-)24-26

NATRApHASE™ 30P does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

4. FIRST AID MEASURES

Eye Contact: Irrigate thoroughly with water, open eyelids forcibly.

Skin: Wash affected skin with water (not solvents); report any skin irritation to medical advisor.

Excessive Ingestion: DO NOT induce vomiting. Drink copious amounts of water. Follow with Milk of Magnesia, beaten eggs or vegetable oil. Contact medical physician immediately.

5. FIRE FIGHTING MEASURES

Non Flammable. Non combustible

6. ACCIDENTAL RELEASE MEASURE

Dispose in accordance with Section 13.
Wash area thoroughly with water.
Neutralise with weak alkaline solution.
Avoid contact with skin and eyes.
Do not allow release into drainage system.

7. HANDLING AND STORAGE

Sensible precautions should be taken to avoid contact with the eyes and skin, inhalation or accidental ingestion.
Observe strict cleanliness and personal hygiene at all times.
Keep container tightly closed.
Store in a cool, dry area.
Protect from light and heat
Keep away from odorous and toxic substances.

8. EXPOSURE, CONTROL AND PERSONAL PROTECTION

An official occupation exposure limit for **NATRAphase™ 30P** has not been established but the recommended limited time working weighted average (8 hour working day) is 10.00 mg/m³

Eye protection and PVC or rubber gloves should be worn as appropriate and local exhaust ventilation employed if there is a risk of exceeding the recommended exposure limit.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Colour: White to cream free flowing powder.

Assay: 100%

Odour: Fresh

Bulk Density (@20°C): 1.02 – 1.04

Solubility: Soluble in water.

Flammability: Non flammable. Non combustible

10. STABILITY AND REACTIVITY

NATRAPHASE™ 30P is stable. Protect from humidity, light and heat for quality reasons. DO NOT MIX with concentrated chlorine (bleach), ammonia based cleansers or similar products. However accidental mixing with very dilute solutions of **NATRAPHASE™ 30P** with very dilute solutions of chlorine (bleach), ammonia based cleansers or similar products should not pose health or safety risks.

11. TOXICOLOGICAL INFORMATION

All the ingredients in **NATRAPHASE™ 30P** are food grade materials generally regarded as safe for use as a processing aid.

Oral: LD₅₀>2800 mg/kg
Local effects: May cause irritation of eyes, skin and mucous membranes.
Specific effects: Not mutagenic (Ames-test)

12. ECOLOGICAL INFORMATION

NATRAPHASE™ 30P is not expected to result in any persisting environmental influence. Material decomposes in soil. Studies do show that there are no adverse effects applying **NATRAPHASE™ 30P** directly to crops.

13. DISPOSAL CONSIDERATION

Discharge, treatment must be disposed/treated in accordance with The Special Waste Regulations in accordance with local, regional laws and regulations.

14. TRANSPORT INFORMATION

Not classified as hazardous for transport.

15. REGULATORY INFORMATION

European Union (EU): Dangerous Substances (Annex 1)

- **EC No. 231-665-7**
- **Labels: Xi (irritant)**
- **Risk Phrases: R41**
- **Safety Phrases: S(2-)24-26**

NATRAPHASE™ 30P is supplied for use as a pH regulator, leavening agent and processing aid and is not for retail sale. Classification and labelling is in accordance with Directives 67/548/CEE and 1999/45/CE

16. ADDITIONAL INFORMATION

NATRAPHASE™ 30P satisfies:

Food Chemicals Codex 5th Edition specifications
Categorised: Generally Recognised as Safe (GRAS) by the FDA
Produced under ISO9001:2000 Certified Quality Management Systems
Shelf Life of NATRAPHASE is 12 months from production date.

Country of Origin: United Kingdom



Sales and Marketing of Natural Biocide Formulations

Natural Preserves has used every possible care in compiling, preparing and issuing this information. Manufacturers using this product must nevertheless satisfy themselves of the suitability of the material for incorporation in their own end-products having regard to all relevant obligations therewith, whether under the Food Safety Act, Feeding Stuffs Regulations, Health & Safety at Work Act, Control of Substances Hazardous to Health Regulations or any other relevant legislation or common law requirement.

The information contained in this publication is based on our own research and development work and is to the best of our knowledge reliable. Users should, however, conduct their own tests to determine the suitability of our product for their own specific purposes. Statements contained herein should not be considered as a warranty of any kind, expressed or implied and no liability is accepted for the infringement of any patents

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