



Sales and Marketing of Natural Biocide Formulations

NATRApHASE™ ABAF

Anti Browning Agent

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ANTI BROWNING AGENT NATRApHASE™ ABAF

PRODUCT DESCRIPTION AND SPECIFICATION

Description: NATRApHASE™ ABAF is a clear, blend of natural organic acidulants which has been formulated specifically to delay browning in apples, pears and bananas enabling a longer shelf life.

Functionality:

- Delays browning = longer shelf life.
- Inactivation of enzymes which catalyse the initiation of the browning processes.

Potential benefits:

- Consumer friendly alternative.
- Improvement of food products by significantly “slowing up” the browning process and hence improving the shelf life of produce.
- Consistent product quality from batch to batch by minimising variation in taste, odour, colour and texture with no loss in nutritional value.

Usage levels: We generally suggest a concentration of 1.0% - 6.0%.

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

Packaging: NATRApHASE™ ABAF is available in 20kg, 200kg net poly containers and IBC = 1000kg. Tanker deliveries can also be made available.

Safety and Handling: A materials Health and Safety Data Sheet is available on pages 3 - 5

MATERIAL SAFETY DATA SHEET

NATRApHASE™ ABAF

I. PRODUCT DESCRIPTION AND SPECIFICATION

Description: NATRApHASE™ ABAF is a clear, weak blend of natural organic acidulants and poly-D-glucosamine solution.

Specifications:

Appearance:	Clear
Taste:	Weak Acidic
Odour:	Fresh to odourless
Solubility:	Soluble in water
Stability:	Stable.

II. SAFETY INFORMATION

1. IDENTIFICATION

Name: NATRApHASE™ ABAF
Product Code: NPABAF020, NPABAF200, NPABAFIBC (20kg, 200kg, 1000kg)
Supplied by: Natural Preserves Limited
Unit 10, Business Centre
Eanam Wharf
Blackburn
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Telephone: +44 (0)1254 678703 Fax: +44 (0)1254 662590
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2. COMPOSITION

Blend of Food approved natural, organic acidulants and poly-D-glucosamine.

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

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

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. Not likely to be hazardous if ingested.

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.
Land disposal is acceptable. NATRAPHASE™ ABAF is biodegradable.

7. HANDLING AND STORAGE

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

8. EXPOSURE, CONTROL AND PERSONAL PROTECTION

An official occupation exposure limit for **NATRAPHASE™ ABAF** 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 are not essential but 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:	Clear weak acidic solution
Assay:	20% Concentrate
Odour:	Fresh to odourless
Molecular mass:	Not relevant – mixture
Bulk Density (@20°C):	1.02 – 1.04
Solubility:	Soluble in water.
Flammability:	Non flammable. Non combustible

10. STABILITY AND REACTIVITY

NATRAPHASE™ ABAF is stable. DO NOT MIX with concentrated chlorine (bleach), ammonia based cleansers or similar products. Incompatible with strong oxidizing agents. Product does not polymerise. There is no known effect from chronic exposure to Natrox™ ABAF.

11. TOXICOLOGICAL INFORMATION

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

Oral:	LD50>10g/kg
Local effects:	May cause irritation of eyes, skin and mucous membranes.
Specific effects:	Not mutagenic (Ames-test)

12. ECOLOGICAL INFORMATION

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

13. DISPOSAL CONSIDERATION

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

14. TRANSPORT INFORMATION

Not classified as hazardous for transport.

15. REGULATORY INFORMATION

NATRApHASE™ ABAF is supplied for use as a processing aid in fruit (and vegetable) washing processes. and is not for retail sale. Classification and labelling is in accordance with Directives 67/548/CEE and 1999/45/CE. Does not contain a toxic chemical subject to SARA TITLE 111 Section 313.

16. ADDITIONAL INFORMATION

NATRApHASE™ ABAF 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 Natrox™ ABAF is 6 months from production date.

Country of Origin: United Kingdom

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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