



Sales and Marketing of Natural Biocide Formulations

## **NATRApHASE™ ABAV**

### **Anti Browning Agent**

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## **ANTI BROWNING AGENT NATRApHASE™ ABAV**

### **PRODUCT DESCRIPTION AND SPECIFICATION**

**Description:** NATRApHASE™ ABAV is a clear, weak natural acidulant solution which has been formulated specifically to delay browning in potatoes, carrots, turnips, and parsnips 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 to traditional sulphites.
- 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™ ABAV is one (1) year from packaging date (**unopened**). Store tightly closed.

**Packaging:** NATRApHASE™ ABAV 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™ ABAV

### I. PRODUCT DESCRIPTION AND SPECIFICATION

**Description:** NATRApHASE™ ABAV is a clear, weak natural acidulant solution.

**Specifications:**

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

### II. SAFETY INFORMATION

#### 1. IDENTIFICATION

**Name:** NATRApHASE™ ABAV  
**Product Code:** NPABAV020, NPABAV200, NPABAVIBC (20kg, 200kg, 1000kg)  
**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](mailto:info@naturalpreserves.co.uk)

#### 2. COMPOSITION

Food approved acidulant.

**3. HAZARD IDENTIFICATION** NATRApHASE™ ABAV is classified as very low hazard. There are no known health hazards associated with NATRApHASE ABAV 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™ ABAV 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™ ABAV** has not been established but the recommended limited time working weighted average (8 hour working day) is 10.00 mg/m<sup>3</sup>

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:** Clear weak acidic solution

**Assay:** 20% Concentrate

**Odour:** Fresh

**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™ ABAV** 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™ ABAV 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™ ABAV** are food grade materials generally regarded as safe for use as a processing aid.

**Oral:** LD<sub>50</sub>>2800 mg/kg  
**Local effects:** May cause irritation of eyes, skin and mucous membranes.  
**Specific effects:** Not mutagenic (Ames-test)

## 12. ECOLOGICAL INFORMATION

**NATRApHASE™ ABAV** 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™ ABAV** 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

### 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™ ABAV** is supplied for use as a processing aid in vegetable and fruit washing processes. 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™ ABAV satisfies:**

Food Chemicals Codex 5<sup>th</sup> Edition specifications  
Categorised: Generally Recognised as Safe (GRAS) by the FDA  
Produced under ISO9001:2000 Certified Quality Management Systems  
Shelf Life of Natrox™ ABAV is 6 months from production date.

**Country of Origin:** United Kingdom



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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

**Natural Preserves Limited**  
**Unit 10, Business Centre, Eanam Wharf, Blackburn, Lancashire BB1 5BL United Kingdom**  
**Tel: +44 (0)1254 678703 Mobile: +44 (0)7918 759577**  
**Email: [info@naturalpreserves.co.uk](mailto:info@naturalpreserves.co.uk) WWW: [www.naturalpreserves.co.uk](http://www.naturalpreserves.co.uk)**

**Company Registration Number: 6161556 VAT Registration Number: 919 6868 62**