

# Betaine – product information

Finnfeeds Finland Ltd.  
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# Natural betaine

→ Chemical name:

- Trimethylglycine
- 2-Trimethylammonioacetate

→ INCI name:

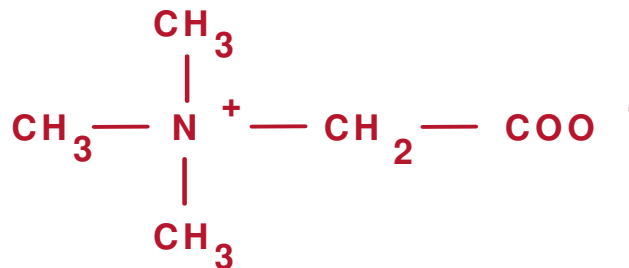
- Betaine

→ Betaine anhydrous:

- **Betafin BP 20**
- So-called dry betaine
- Holds max. 2% water when packed. 98 – 100% betaine.

→ Betaine monohydrate:

- **Natural Extract AP**
- Has one water molecule
- Holds max. 15% water when packed, approx. 85% betaine.



# Betaine occurs in nature

**Natural betaine  
from sugar beet**



## FRUITS



**orange  
lemon  
grapefruit**

## SHELLFISH



## GRAIN



**barley  
wheat  
corn  
oat**

## VEGETABLES



**pea  
spinach  
beans  
sprouts**

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# Betaine properties

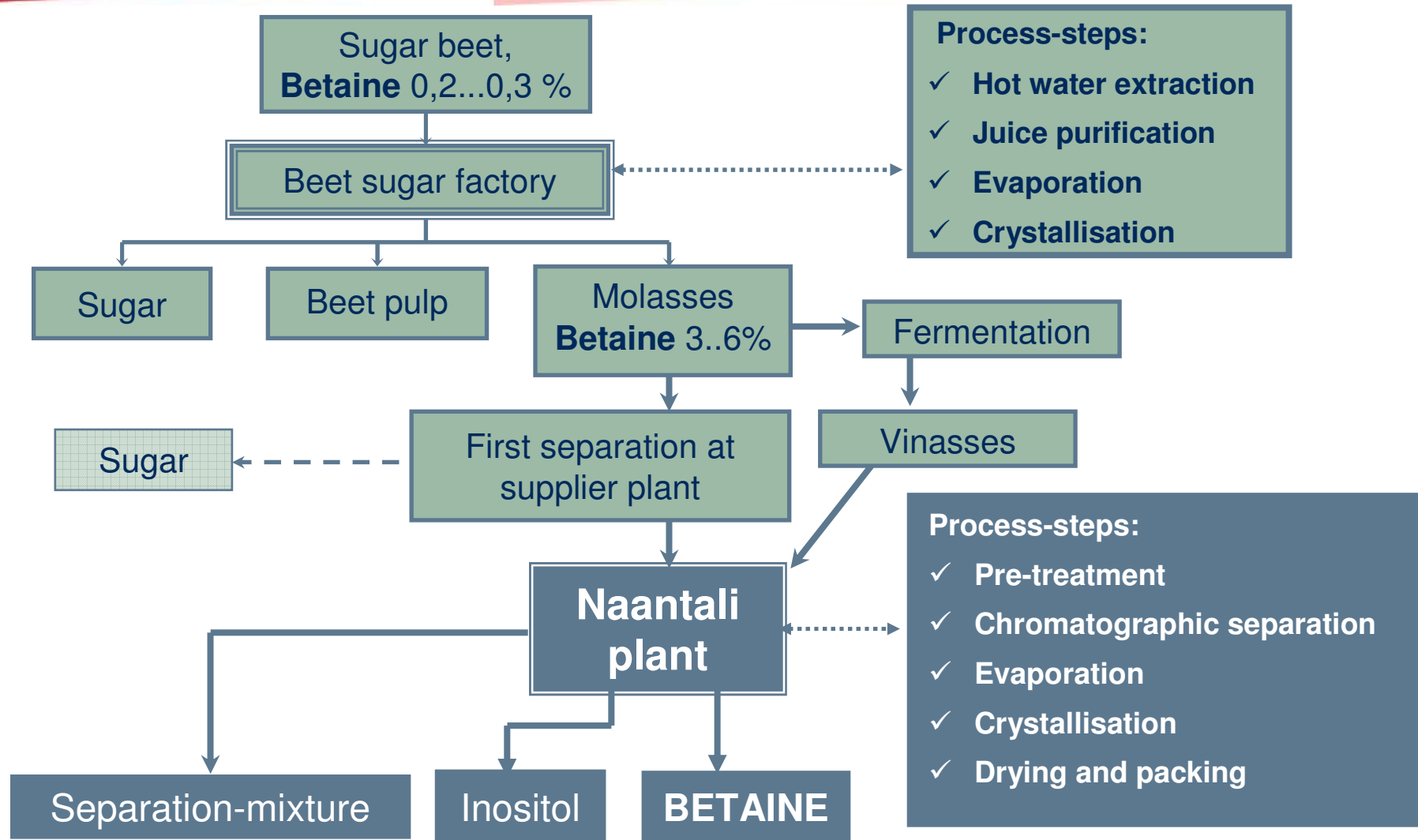
- Crystalline
- White
- Odourless
- Sweet and bitter taste
  
- Dissolves easily in water
  - 160g betaine / 100g water
  - 55g betaine / 100g methanol
  - 8,7g betaine / 100g ethanol
  
- Compatible with anionic, cationic, nonionic materials
- Betaine improves the solubility of allantoin and salicylic acid.



# Betaine manufacturing

- Betaine is extracted from sugar beet molasses
  
- No organic solvent is used in the production.
  
- Not containing:
  - residual solvents
  - classes of solvents defined by EU guideline
  - pesticides
  - ethylene oxide
  - dioxane, nitrosamines
  
- No additives such as preservatives and antioxidants.
  
- Do not contain anything of animal origin (BSE/TSE)
  
- Heavy metal content below 10 ppm.

# Betaine production



# Betaine products



First you add knowledge...

## → Natural Extract AP

- Monohydrate, 99% d.s.

## → Betafin BP 20

- Anhydrous, 99% d.s.

## → Betafin BPPC10

- Powdered betaine containing anti-caking agent (tricalciumphosphate ~1%)
- Same particle size as talcum powder
- Anhydrous, 97% d.s.

## → Betafin TH

- Technical grade
- Monohydrate, 98% d.s.

## → Anhydrous betaine

- CAS: 107-43-7
- EINECS: 203-490-6

## → Monohydrate betaine

- CAS: 590-47-6
- EINECS: 209-684-7



## Natural certificates

### → Ecocert registration

- “Raw material authorized by Ecocert, complying with the standards for ecological and organic cosmetics”

### → Soil Association, UK

### → NSF, USA



# Certificates

- Kosher certificate
- GMO free
- HALAL statement
  
- Naantali factory has Lloyd's ISO 9001 and 14001 certificates



# Betaine applications

- Cosmetics
- Dental
  
- De-icing at airports
- Fermentation
  
- Food
- Dietary supplements
  
- Animal feed
  - Pig, poultry, fish, shrimp
- Plant
  - crop protection and enhancement



# Betaine in cosmetics

## → Skin care

- Deep moisturizer
- Controls water balance of the skin
- Protects skin against mechanical and chemical irritation
- Feel modifier
- Co- solubilizer of allantoin and salicylic acid
- Increases fibroblast growth and collagen production
- Reduces stickiness in formulations

## → Hair care

- Moisturizer
- Gives softer hair feel
- Adds gloss
- Protects scalp
- Anti-irritant
- Conditioner
- Foam enhancer

## → Oral care

- Moisturizer
- Anti-irritant
- Better mouth feel



# Why use betaine?

- Versatile:
  - Can be used in many different cosmetic applications
- Easy to formulate
- Easy to use with different cosmetic raw materials, eg. different
- Natural
- Safe





**DANISCO**

First you add knowledge...