

FoodCare® FCSL

Natural Mould and Yeast Processing Aid Inhibitor for Beverages

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PRODUCE DESCRIPTION AND SPECIFICATION

Description: FoodCare® FCSL is a clear to pale yellow liquid processing aid. A blend of European and FDA Food Approved, GRAS status, label friendly acidulants which are synergistically formulated within a weak solvent base designed to inhibit Gram+ and Gram- bacteria, yeast and mold contamination in a wide variety of prepared fruit and vegetable beverages. This facilitates a longer shelf life without affecting the organoleptic and sensory properties of your freshly processed beverage with no loss of nutritional value.

Primary Function:

The primary function of FoodCare® FCSL is to protect against yeast and mold contamination and stabilise non-alcoholic and alcoholic beverages such as:

- Carbonated or non-carbonated juice beverages,
- Isotonic sports beverages,
- Iced teas
- Flavoured water
- Wines

The essential action of the active ingredients is to rupture/dissolve the outer micro-organism membrane allowing entry of the acidulant blend which lowers the inner cell pH thus denaturing the genetic material within the cell (even at lowest concentrations), leading to the destruction of the micro-organisms.

FoodCare® FCSL can be added directly to Fruit or Vegetable Beverage either before or after filling of the juice/beverage. It can be used either by automated dosing or by batch processing.

- On addition depending on the nature of the beverage, it breaks down into small amounts of methanol and acidulants.
- Can be used for multiple range of beverages derived from (apples, oranges, pears, plums, strawberries, raspberries, blackberries, cherries, cranberry including the exotic varieties like banana, pineapple, kiwi fruit, mango's, papaya and melons) including blends of beverages.
- Safe and simple to handle subject to health and safety procedures being adhered to. Review MSDS data.
- No fumes liberated, no bad odour facilitating a safer and healthier work environment.
- Does not contain synthetic biocides or antibiotics.
- Non-mutagenic
- Biodegradable
- Very soluble in fruit and/or vegetable juices at low temperatures of 4°C

Usage Levels:

We generally suggest testing using 0.948ml/L - 1.492ml/L

Pack Size: Supplied in 25litre poly jerry cans and 4X5litre poly cans per carton.

Materials Safety Data Sheet

FoodCare® FCSL

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending
Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization
and Restriction of Chemicals (REACH)

I. PRODUCT DESCRIPTION AND SPECIFICATION

Description: FoodCare® FCSL is a clear to pale yellow liquid concentrate consisting of a weak solvent based proprietary blend of natural acidulants.

Specifications:	Appearance:	Clear water white to pale yellow liquid.
	Taste:	Acidic
	Odour:	Fresh
	Density g/ml	1.18@ 20°C
	Solubility:	Completely soluble in water
	pH @20°C	0.55 – 0.60
	Stability:	Stable @ 15°C-23°C

II. SAFETY INFORMATION

1. IDENTIFICATION

Name: **FOODCARE® FCSL**
Product Code: FCSL020
Supplied by:
FOODCARE
TECHNOLOGIES sprl
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2. COMPOSITION

FoodCare® FCSL is a natural clear to pale yellow liquid concentrate consisting of a weak methanol solvent based proprietary blend of natural acidulants.

3. HAZARD IDENTIFICATION

FoodCare® FCSL is regarded as low-hazard.

However, as a consequence of the presence of methanol, albeit at a low concentration (below the 25% at which level methanol can be ignited) **the following precautions need to be observed:**

i. Route of Entry:

Skin contact – moderate
Eye contact – moderate
Ingestion – major
Inhalation – major

ii. **Effects of Short – term (Acute) Exposure:**

- a. Inhalation – of high airborne concentrations can, cause headaches, sleepiness, nausea, confusion, digestive and visual disturbances.
- b. Concentrations in air exceeding 1000ppm may cause irritation of the mucous membranes.

iii. **Skin contact** – moderately irritating to the skin. Can be absorbed through the skin with effects similar to those described in “inhalation”.

iv. **Eye contact** – mild to moderate eye irritant. High vapour concentrations or liquid contact with the eyes causes irritation and burning.

v. **Ingestion** – swallowing even small amounts of pure 99% methanol could potentially cause blindness or death. Effects of sub lethal doses **MAY BE** nausea, headaches, abdominal pain, vomiting and visual disturbance ranging from blurred vision to light sensitivity.

4. FIRST AID MEASURES

- i. **Eye Contact:** Remove contact lens if worn. Immediately irrigate thoroughly with plenty of clean running water for at least 15 minutes, open eyelids, lifting the upper and lower eyelids. Seek medical attention.
- ii. **Skin Contact:** Remove contaminated clothing. In a shower wash affected areas with soap and water for at least 15 minutes. Seek medical attention if irritation occurs or persists. Wash clothing before re-use.
- iii. **Ingestion:** Swallowing methanol is potentially life threatening. Onset of symptoms may be delayed for 18 to 24 hours after ingestion. If conscious and medical aid is not immediately available **DO NOT INDUCE VOMITING**. Contact medical physician and transport to a medical facility immediately.
- iv. **Inhalation:** Remove to fresh air. Restore or assist breathing if necessary. Obtain medical attention.



Eye Contact



Skin Contact



5. FIRE FIGHTING MEASURES

FoodCare® FCSL is non-combustible. However in the event of fire it is advisable to be aware of the presence of methanol in FoodCare® FCSL. As a consequence hazardous combustion products - oxides of carbon and formaldehyde can be present.

- I. Sensitivity to Static Discharge – Very low
- II. Extinguishing Media – **Small fires:** CO2, water spray
Large Fires: Water spray, AFFF(R) =Aqueous Film Forming Foam (alcohol resistant) with either a 3% or 6% foam proportioning system.

6. ACCIDENTAL RELEASE MEASURE

Personal Precautions: Wear rubber gloves if prolonged contact with concentrated solution. Avoid contact with skin and eyes. Wear adequate protection.

Environmental: Absorb large spillage with non-combustible absorbent material such as sand (**not saw dust**) then place in a closed container for transfer to an approved waste site. Flush area with water. Restrict access to spill area until completion of clean up by trained personnel.

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 at preferably 15-23°C. Prevent exposure to light, oxygen and metals.

8. EXPOSURE, CONTROL AND PERSONAL PROTECTION

Handle FoodCare® FCSL in accordance with Regional and or State authority regulations of occupational hygiene and safety. For eye protection wear suitable safety goggles. PVC or rubber gloves should be worn as appropriate.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Colour: Clear, water white to pale yellow liquid

Odour: None

Molecular Mass: Not Relevant – Mixture

Density g/ml 1.18 @ 20°C

Solubility: Completely soluble in water

Flash Point: Non combustible

Degradability: >98% biodegradable

10. STABILITY AND REACTIVITY

FoodCare® FCSL is stable under normal storage conditions. Protect from direct light, heat and exposure to metals and oxygen. Store at preferably 15-23°C for stability reasons. Protect from frost. Shelf life is 12 months subject to recommended storage conditions being observed.

11. TOXICOLOGICAL INFORMATION

Exposure: See Section 3

Irritancy: See Section 3

Sensitisation: No known effects

Carcinogenicity Not listed

Teratogenicity: No

Reproductive toxicity: Reported to cause birth defects in rats exposed to 20,000ppm

12. ECOLOGICAL INFORMATION

Biodegrades easily in water

No known accumulation

Methanol 99% in fresh or salt water may have serious effects on aquatic life. Studies on methanol's toxic effect on sewage sludge bacteria reported little effect on digestion at 0.10% while 0.50% methanol retarded digestion. Methanol is broken down into carbon dioxide (CO₂) and water.

13. DISPOSAL CONSIDERATION

Discharge: Treatment and disposal must be in accordance with Regional and or State authority Waste Regulations at a licensed incinerator or landfill site.

14. TRANSPORTATION:

Please observe Risk and Safety measures. Ensure the transport haulier/carrier can maintain the temperature within the limits advised in Para 10.

15. REGULATORY INFORMATION

FoodCare® FCSL is supplied for use as a processing aid in fruit and vegetable juices/beverages and is not for retail sale. Classification and labelling is in accordance with Regulation (EC) No 1333/2008 --- Processing Aids and (2) Regulation (EU) No 1169/2011 Labelling Regulation.

European Labelling in Accordance with EU CLP Regulation (EC) NO. 1272/2008

Adopting the United Nations Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Health hazards:

H302: Harmful if swallowed.

H313: May be harmful in contact with skin.

H320: Causes eye irritation.

EUH206: Warning: Do not use together with other products. Contains low level of Methanol.

EUH401: To avoid risks to human health and environment comply with the instructions for use.

General Precaution:

P101: For medical advice have product container or label at

P102: Keep out of REACH of CHILDREN

P103: Read MSDS, Protocol and Label before using.

Prevention Precaution:

P232+P233+235: Protect from moisture, Keep container tightly closed, Keep at room ambient temperatures - 15°C-23°C

P262: Avoid contact in eyes, on skin or on clothing

P280: Wear protective gloves, eye and face protection.

Response Precautionary Statement

P332 + P353: If skin irritation does occur and persists, rinse skin with water/shower.

P337+P313+314: If eye irritation persists or if you feel unwell seek immediate medical assistance.



**Contains a
Toxic Substance**



Irritant

16. INFORMATION ON USE

Uses: FoodCare® FCSL is a natural formulated Anti-microbial, anti-mould and yeast Processing Aid for use in beverages as described in Primary Functions on Page 2.

17. ADDITIONAL INFORMATION

Country of Manufacture: The Netherlands

18. MICROBIOLOGICAL DATA:

FoodCare® FCSL is effective against:

1. Zygosaccharomyces rouxii
2. Trichoderma
3. Penicilium Roqueforti
4. Aspergilla Niger
5. Candida intermedia
6. Candida parapsilosis
7. Candida sake
8. Saccharomyces cerevisiae
9. Alicyclobacillus acidoterrestris
10. E.coli
11. Salmonella
12. Listeria

Permitted Methanol 99%-100% (CAS# 67-56-1) Exposure Limits by Country as released by Avogadro.chem.iastate.edu ACC # 95294

OEL-ARAB Republic of Egypt: TWA 200 ppm (260 mg/m³)
Skin OEL-AUSTRALIA: TWA 200 ppm (260 mg/m³); STEL 250 ppm
Skin OEL-BELGIUM: TWA 200 ppm (262 mg/m³); STEL 250 ppm
Skin OEL-CZECHOSLOVAKIA: TWA 100 mg/m³; STEL 500 mg/m³
OEL-DENMARK: TWA 200 ppm (260 mg/m³)
Skin OEL-FINLAND: TWA 200 ppm (260 mg/m³); STEL 250 ppm
Skin OEL-FRANCE: TWA 200 ppm (260 mg/m³) STEL 1000 ppm (1300 mg/m³)
OEL-GERMANY: TWA 200 ppm (260 mg/m³)
Skin OEL-HUNGARY: TWA 50 mg/m³; STEL 100 mg/m³
Skin JAN9 OEL-JAPAN: TWA 200 ppm (260 mg/m³)
Skin OEL-THE NETHERLANDS: TWA 200 ppm (260 mg/m³)
Skin OEL-THE PHILIPPINES: TWA 200 ppm (260 mg/m³)
OEL-POLAND: TWA 100 mg/m³ OEL-RUSSIA: 200 ppm; STEL 5 mg/m³
Skin OEL-SWEDEN: TWA 200 ppm (250 mg/m³); STEL 250 ppm (350 mg/m³)
Skin OEL-SWITZERLAND: TWA 200 ppm (260 mg/m³); STEL 400 ppm
Skin OEL-THAILAND: TWA 200 ppm (260 mg/m³)
OEL-TURKEY: TWA 200 ppm (260 mg/m³)
OEL-UNITED KINGDOM: TWA 200 ppm (260 mg/m³); STEL 250 ppm
OEL-UNITED STATES of AMERICA: ACGIH-TWA 200 ppm (260 mg/m³); Skin STEL 250 ppm;
Skin notation OSHA PEL: 200ppm

STEL = Short Term Exposure Limit

OEL = Occupational Exposure Limit

TWA = Time Weighted Average

DISCLAIMER: Endeavours have been made to ensure that the information given is reliable, but notwithstanding this, and except for those obligations and liabilities that cannot be excluded by operation of law, FOODCARE TECHNOLOGIES sprl does not assume any obligation or liability arising from the information given, the recommendations made or the use of their respective products. Since the conditions of handling and use are beyond our control, we do not guarantee any results, and we are not liable for any damage incurred by following these suggestions. Product trials, full scale testing and end product performance are the responsibility of the user. The customer assumes all risk and liability for any testing, use or handling of any material beyond FOODCARE TECHNOLOGIES sprl direct control. You are referred to the standard terms and conditions of the supplying company, which apply. Certain applications may have the benefit of patent registration and you are therefore recommended in your own interest to take appropriate steps to avoid the infringement of such.

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