

# FD-DVS CHN-11

## Product Information

- Description** Mesophilic Aromatic Culture, type LD.  
Multiple mixed strain culture containing *Lactococcus lactis* subsp. *cremoris*, *Lactococcus lactis* subsp. *lactis*, *Leuconostoc mesenteroides* subsp. *cremoris* and *Lactococcus lactis* subsp. *diacetylactis*. The culture produces flavor and CO<sub>2</sub>.  
CHN-11 is packed in a convenient freeze-dried form.
- Application** The culture is primarily used in the manufacture of Continental cheese types (Gouda, Edam, Leerdam, Samsøe).
- Packing**
- | Packing size | Item number |
|--------------|-------------|
| 10 X 50U     | 100099      |
| 25 X 200U    | 100126      |
| 20 X 500U    | 100160      |
- Availability** In addition to CHN-11, other cultures in this series include CHN-19, CHN-120, FLORA-DANICA and B-11.
- Storage and shelf life** Freeze-dried cultures should be stored at -18°C (0°F) or below. If the cultures are stored at -18°C (0°F) or below, the shelf life is at least 24 months. At +5°C (41°F) the shelf life is at least 6 weeks.
- Instructions for use** Remove the cultures from the freezer just prior to use. **DO NOT THAW THESE CULTURES.** Sanitize the top of the pouch with chlorine. Open the pouch and pour the freeze-dried granules directly into the pasteurized product using slow agitation. Agitate the mixture for 10-15 minutes to distribute the culture evenly.
- Dosage** Recommended dosage of freeze-dried DVS cultures in units to liters:

DVS inoculation percentage	Amount of milk to be inoculated			
	1,000 l	5,000 l	10,000 l	15,000 l
1000U/5000 l	200U	1000U	2000U	3000U
500U/5000 l	100U	500U	1000U	1500U
250U/5000 l	50U	250U	500U	750U

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Recommended dosage of freeze-dried cultures in units to US lbs:

DVS inoculation percentage	Amount of milk to be inoculated			
	2,270 lbs	11,350 lbs	22,700 lbs	34,000 lbs
1000U/11,350 lbs	200U	1000U	2000U	3000U
500U/11,350 lbs	100U	500U	1000U	1500U
250U/11,350 lbs	50U	250U	500U	750U

As a principal rule 1000U of freeze-dried DVS culture will correspond to 100 l of active bulk starter. However, specific usage rates should be determined experimentally before a new application.

## Incubation temperature

Recommended incubation temperature is 22-30°C (95-113°F). For more information please use Chr. Hansen's suggested recipes.

## Kosher status

CHN-11 is Kosher approved (Circle K D) for year-round use, excluding Passover.

## Technical Information

### - Flavor and gas production

Flavor: High  
Gas: High (CO<sub>2</sub>)

### - Salt sensitivity

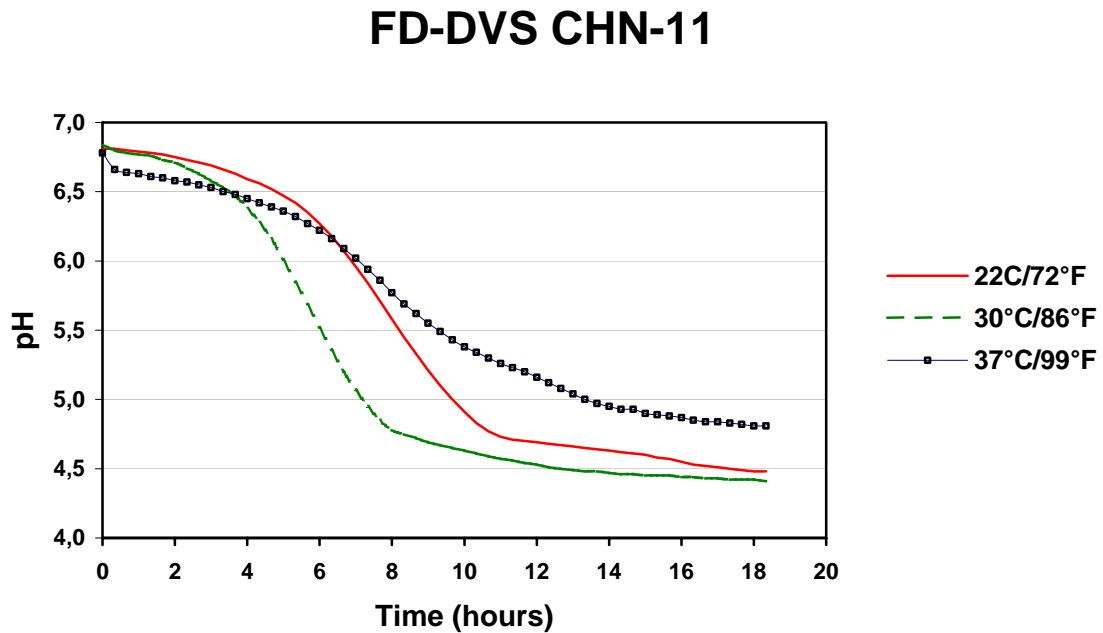
50% inhibition: 3.5% NaCl  
100% inhibition: 5.8% NaCl

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Figure 1. The effect of temperature on acidification



Fermentation conditions:  
Lab milk 9.5% T.S.: 140°C/8 sec. - 100°C/30 min  
500U/5000 I Inoculation

NB: Note that the accuracy of these curves is relative and subject to experimental error.

## Technical service

Chr. Hansen's world-wide facilities and the personnel of our application and technology center are at your disposal with assistance and instruction.

## References

References and analytical methods are available upon request.