



Milk coagulants for making cheese

Spec Sheet

Introduction:

- **+QSO**® milk coagulants are manufactured as tablets, powder and/or liquid, using as active ingredient a thermo labile enzyme of a selected strain of the soil Rhizomucor miehei, which is widely used in the Dairy Industry.

 Thermo Labile enzyme means that no residual enzymatic activity is found.
- Thermo Labile enzyme means that no residual enzymatic activity is found in the whey after pasteurization process.
- **+QSO**[®] coagulates the milk by hydrolysis of the bond methionine-phenylalanine of Kappa casein.

Regarding parameters like pH, and calcium content in the milk, the activity of **+QSO**® is similar than rennet tablets but the activity and stability against temperature is superior to the activity of animal rennet.

Use and dosage:

+QSO® must be completely dissolved in enough amount of water (one glass of water per tablet or powder sachet and one litre for the liquid coagulant +QSO®L or +QSO®LMAX) before be added into the milk..



The tablet solution must stand for at least 20 minutes before be added into the milk.

- **+QSO**[®] tablets are manufactured to set 50 litres of *cow milk in approximately 45 minutes at 35°C commonly referred as milk.*
- **+QSO**[®] powder is manufactured in two different presentations: **+QSO**[®] 50 to set 50 to set 50 litres of milk and **+QSO**[®] 75 to set 75 litres of milk.
- +QSO® is also manufactured as liquid coagulant in two different presentations: +QSO® L with milk coagulant activity to set 100 litres of milk for every 9 ml and +QSO® L_{MAX} with milk coagulant activity to set 100 litres of milk for every 6 ml. Both are packed as gallon [3.7885 litres] and litre [1,000 ml]. Thus, +QSO® L Gallon is designed to set 42,000 litres of milk and 1 litre shall set 11,100 litres of milk. +QSO® L_{MAX} Gallon is designed to set 63,000 litres of milk and 1 litre shall set 16,600 litres of milk.

Packaging:

Whereas the weight per tablet is not as significant as the content of the active ingredient, the reference weight is 0.600 g each.

Primary Package

+QSO[®] tablets are packaged in PVDC-Foil blisters with 10 tablets each, the blister measure are 96 x 40 mm [3 ³/₄" x 1 ¹/₂"]

Secondary Package

100 tablets or 10 blisters come in an attractive box which size is $102 \times 42 \times 71 \text{ mm}$ [4" x 1 ½" x 2 ¾"]

Tertiary Package

30 x 100's boxes are packaged in a corrugated carton, which measures 220x 210x220 mm [8 ¾" x 8 ¼" x 8 ¾"]. Each corrugated carton contains 3000 tablets.



...Packaging...

Fourth Package

12 corrugated cartons with 30 boxes of 100 tablets each come into a master box which measures 440 x 450 x 700 mm [17 $\frac{1}{3}$ " x $17\frac{3}{4}$ " x $27\frac{1}{2}$ "] The master corrugated box contains 36,000 tablets.

- **+QSO**[®]**50** powder sachet weighs 1.1 gram and 100 units are packed in a microcorrugated box.
- **+QSO**[®]**75** powder sachet weighs 1.3 gram and 100 units are packed in a microcorrugated box.

Depending on the total volume of each order, proper packaging for the delivery will be arranged.

+QSO[®]L or **+QSO**[®]L_{MAX} may also be specially packed upon request.

Storage and stability:

As all enzymatic products +QSO® must be stored in a cool and dry place and will be not exposed to ray's sun. If the product is conveniently stored, +QSO®'s shelf life, is of three years from manufacturing date and the possible lost of activity during that period could be around than 5% per year.

Ingredients:

Microbial milk coagulant as active ingredient is a thermo labile enzyme of a selected strain of Rhyzomucor miehe. +QSO® are manufactured with selected ingredients that grant the stability and quality.



...Ingredients...

+QSO[®] Tablets:

Microcristaline celullose (cspt); magnesium stearate, vegetal grade USP; silicate dioxide.

+QSO[®] Powder:

Lactose; Dibasic Calcium Phospate and silicate dioxide.

+QSO[®] Liquid:

Sodium Chloride, sodium benzoate and vegetal colorant USP grade.

Aditional Information:

The information contained in this data sheet, as of the issue date, is believed to be true and correct. However, the accuracy or completeness of this information and any recommendations or suggestions is made without warranty or guarantee. Since the conditions of use are beyond the control of our company, it is the responsibility of the user to determine the conditions of safe use of this product.

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For further information please contact the local distributor or refer directly to Nova Panamedical, Sociedad Anónima

+QSO[®] Tablets − Health registration B-21974 valid until 2019 06 04

+QSO® Powder - Health registration B-28324 valid until 2020 02 19

+QSO[®] Liquid - Health registration B-21979 valid until 2019 05 06