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| **Annex 1**. Nutrient Mixture F-12 Ham Formulation   * [Nutrient Mixture F12 Ham](http://www.sigmaaldrich.com/life-science/cell-culture/learning-center/media-formulations/f-12-ham.html#f-12) * [Nutrient Mixture F12 Ham HEPE Modification](http://www.sigmaaldrich.com/life-science/cell-culture/learning-center/media-formulations/f-12-ham.html#hepes)   Nutrient Mixture F-12 Ham   |  |  |  |  | | --- | --- | --- | --- | | **Component** | [**N4888**](http://www.sigmaaldrich.com/ProductLookup.html?ProdNo=N4888&Brand=SIGMA) **[1x] g/L** | [**N6658**](http://www.sigmaaldrich.com/ProductLookup.html?ProdNo=N6658&Brand=SIGMA) **[1x] g/L** | [**N6760**](http://www.sigmaaldrich.com/ProductLookup.html?ProdNo=N6760&Brand=SIGMA) **g/L** | | **Inorganic Salts** | | | | | Calcium Chloride | 0.0333 | 0.0333 | 0.0333 | | Cupric Sulfate • 5H2O | 0.0000025 | 0.0000025 | 0.0000025 | | Ferrous Sulfate • 7H2O | 0.000834 | 0.000834 | 0.000834 | | Magnesium Chloride | 0.0576 | 0.0576 | 0.0576 | | Potassium Chloride | 0.224 | 0.224 | 0.224 | | Sodium Bicarbonate | 1.176 | 1.176 | — | | Sodium Chloride | 7.599 | 7.599 | 7.599 | | Sodium Phosphate Dibasic (anhydrous) | 0.14204 | 0.14204 | 0.14204 | | Zinc Sulfate • 7H2O | 0.000863 | 0.000863 | 0.000863 | | **Amino Acids** | | | | | L-Alanine | 0.009 | 0.009 | 0.009 | | L-Arginine • HCl | 0.211 | 0.211 | 0.211 | | L-Asparagine • H2O | 0.01501 | 0.01501 | 0.01501 | | L-Aspartic Acid | 0.0133 | 0.0133 | 0.0133 | | L-Cysteine • HCl • H2O | 0.035 | 0.035 | 0.035 | | L-Glutamic Acid | 0.0147 | 0.0147 | 0.0147 | | L-Glutamine | — | 0.146 | 0.146 | | Glycine | 0.00751 | 0.00751 | 0.00751 | | L-Histidine • 3HCl • H2O | 0.02096 | 0.02096 | 0.02096 | | L-Isoleucine | 0.00394 | 0.00394 | 0.00394 | | L-Leucine | 0.0131 | 0.0131 | 0.0131 | | L-Lysine • HCl | 0.0365 | 0.0365 | 0.0365 | | L-Methionine | 0.00448 | 0.00448 | 0.00448 | | L-Phenylalanine | 0.00496 | 0.00496 | 0.00496 | | L-Proline | 0.0345 | 0.0345 | 0.345 | | L-Serine | 0.0105 | 0.0105 | 0.0105 | | L-Threonine | 0.0119 | 0.0119 | 0.0119 | | L-Tryptophan | 0.00204 | 0.00204 | 0.00204 | | L-Tyrosine • 2Na • 2H2O | 0.00778 | 0.00778 | 0.00778 | | L-Valine | 0.0117 | 0.0117 | 0.0117 | | **Vitamins** | | | | | D-Biotin | 0.0000073 | 0.0000073 | 0.000073 | | Choline Chloride | 0.01396 | 0.01396 | 0.01396 | | Folic Acid | 0.00132 | 0.00132 | 0.00132 | | *myo*-Inositol | 0.018 | 0.018 | 0.018 | | Niacinamide | 0.000037 | 0.000037 | 0.000037 | | D-Pantothenic Acid (hemicalcium) | 0.00048 | 0.00048 | 0.00048 | | Pyridoxine • HCl | 0.000062 | 0.000062 | 0.000062 | | Riboflavin | 0.000038 | 0.000038 | 0.000038 | | Thiamine • HCl | 0.00034 | 0.00034 | 0.00034 | | Vitamin B12 | 0.00136 | 0.00136 | 0.00136 | | **Other** | | | | | D-Glucose | 1.802 | 1.802 | 1.802 | | Hypoxanthine | 0.00408 | 0.00408 | 0.00408 | | Linoleic Acid | 0.000084 | 0.000084 | 0.000084 | | Phenol Red • Na | 0.0013 | 0.0013 | 0.0013 | | Putrescine • HCl | 0.000161 | 0.000161 | 0.000161 | | Pyruvic Acid • Na | 0.11 | 0.11 | 0.11 | | Thioctic Acid | 0.00021 | 0.00021 | 0.00021 | | Thymidine | 0.00073 | 0.00073 | 0.00073 | | **Add** | | | | | L-Glutamine | 0.146 | — | — | | Sodium Bicarbonate | — | — | 1.176 | |  | | | |   See more at:  <http://www.sigmaaldrich.com/life-science/cell-culture/learning-center/media-formulations/f-12-ham.html#sthash.OZHvwQfj.dpuf> |
|  |

**Annex 2.** Hcel®NaT (specification)

Producer: Holzbecher, spol. s r.o. barevna a bělidlo Zlíč, Czech Republic.

The dressing material is made of modified cellulose Hcel® NaT, sodium carboxymethyl cellulose by carboxymethylation of non-woven, the so called spun-laced textile material PurCotton® (Winner Medical, China). This structure and the selected degree of carboxymethylation (substitution) allows the material to stay strong when wet and minimises lateral wicking. Partially carboxymethylated cellulose dressing turns into a gel when wet and retains moisture in the wound. The dressing is easy to remove from the wound in one piece.

Product specifications:

(DS – degree of substitution)(14): 0.3

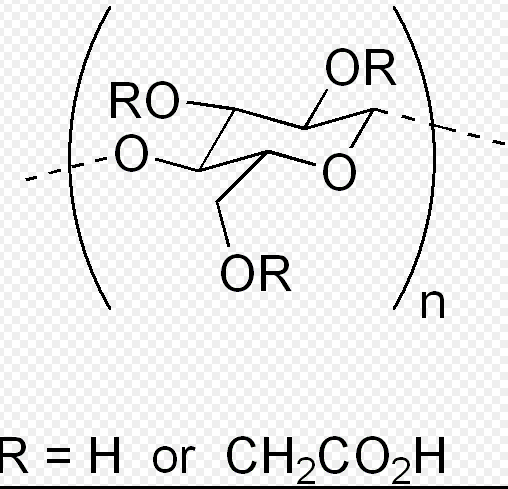
Contact pH (15): 6.7

Basic weight: 70 g/m2

Absorption capacity (16) 12 g/g (physiological solution)

The product is sterilised by radiation and made of high purity cellulose without any additional substances.

The degree of substitution shows how many basic cellulose units (glucopyranose units) are substituted by the functional group - CH2COONa (in average). Determined according to the Czech Pharmacopoeia(14).



**Carboxymethyl cellulose in wound management**

Carboxymethyl cellulose is one of the first materials to be used in wet wound healing (so called hydrocolloid dressing (12)). Later, the company Convatec introduced the so called hydrocolloid fibres (Hydrofibre TM) in a product range called Aquacel (13). Hcel®NaT is another cellulose dressing that has been launched on the market recently.