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Yeast extract – naturally good

Many consumers think that the food industry should be more transparent about the products it makes. As a result, the demand for detailed, easily understood product information and clear labelling of ingredients is rapidly increasing.

EURASYP, the European Association for Specialty Yeast Products, has taken upon itself to respond to this demand by informing consumers about yeast extract – a natural ingredient found in many savoury products.

As a result of its special and unique taste, yeast extract has been used as an ingredient in food products for approximately the past 50 years. However, the basic ingredient for yeast extract – which is yeast – has been used for thousands of years to make bread and beer.

Combining ingredients and influencing taste is what cooking is all about. Yeast extract not only adds taste, but also brings out and balances flavours in products, just like herbs and spices do. That’s why today, yeast extract is a very popular and useful ingredient in food production.

A natural ingredient

Yeast extract comes from a natural source

As its name indicates, yeast extract is derived from fresh yeast. Yeast is truly a natural all-rounder, and essential for the production of common foods such as bread, beer and wine. This same yeast forms the basic ingredient for yeast extract.

Yeast extract is a rich blend of natural components that takes advantage of the various vitamins and proteins that yeast delivers. It is produced without the use of food additives or chemical substances.

Experienced food producers appreciate and use yeast extract, because of its natural and unique taste providing characteristics.

Yeast extract is a natural ingredient produced from yeast without any chemical additives. This same yeast is used for the production of bread, beer and wine.
Yeast extract is a frequently used, natural ingredient made from yeast. Its unique mix of protein components adds, brings out and balances taste in savoury food products.

Integral part of our daily diet

Just like herbs and spices - and as a result of its special taste providing characteristics, yeast extract is used in most of the sauces, bouillons, meat dishes, ready-made dishes and savoury snacks available in supermarkets. Yeast extract not only serves to add taste, but also to bring out and balance existing flours.

While yeast extract is a natural ingredient composed of a variety of amino acids, carbohydrates, vitamins and minerals, a common flavour enhancer such as monosodium glutamate (MSG) is only a single substance additive.

All over the world seasonings are an inherent part of food cultures. In Asian countries for instance, aromatic foodstuffs such as seaweed, Shiitake mushrooms and the well-known soy sauce are used in many different ways. In western cuisine vegetable stock or meat broth are used to provide the basis of tasty meals as well as yeast extract which has been used as a condiment for many decades.

Provides taste naturally

Yeast extract offers a variety of advantages. As it is derived from yeast – a natural source, consumers can rest assured that it is safe. Because a very small quantity can produce exceptional taste, yeast extract is often used as an ingredient in savoury products. The standard concentration of yeast extract therefore usually represents less than 1% of a dish.

Does yeast extract cause allergies?

No. All tests for allergenic effects by third-party nutritionists have confirmed that yeast extract is not an allergen.

Further health risks allegedly caused by glutamic acid like for instance the so-called ‘Chinese restaurant syndrome’ have been refuted by experts.
Why is yeast extract used in products at all?

The bouillon flavour

Although it is not made up of any animal ingredients, the taste of yeast extract is similar to that of a meat bouillon. This is because many of the same taste giving amino acids are present in both yeast extract and meat bouillons.

Glutamic acid, an amino acid, is responsible for the so-called ‘umami’ flavour. It is found in meat-based and protein-rich foods such as cheese, but also occurs in tomatoes, peas and mushrooms. The name ‘umami’ is derived from the Japanese word ‘umai’, which can be translated as ‘delicious’.

As a result of the added savoury note it brings, yeast extract can also be used to replace part of the salt that would normally be used in products. In this respect, it is well adapted for balanced and low-salt diets.

Because very small quantities can produce exceptional taste, yeast extract is often used as an ingredient in savoury products. Just as with herbs and spices, it allows foods to be tastier and full of flavour. Furthermore, yeast extract is rich in high-quality proteins, serves as a good solution for vegetarian cuisine, and by replacing a part of the salt used in products, it can contribute to a balanced and low-salt diet.
In the first step, sugar or molasses are added to yeast to help it grow. When the yeast has developed optimally, it undergoes a heat treatment to halt its growth. During the second step, the yeast’s natural enzymes – or other natural enzymes that have been added to the yeast – will then digest, or break it down into savoury, taste-delivering protein parts. This digestion process can be compared to the ripening of cheese, where enzymes help break down the cheese’s proteins to provide it with delicious taste.

In the third step, the yeast’s taste-delivering parts are then separated from insoluble leftovers, and the mixture is dried until it becomes a powder. This is yeast extract.

There are many variants of yeast extract, therefore it can be used in a wide range of recipes. Differences in taste, colour and smell are mostly achieved by varying cooking temperatures and times.

How is yeast extract labelled on products?

According to the requirements of the European Food Law, yeast extract is either labelled as “yeast extract” or “natural flavour” in the ingredients list of a product.

A closer look at yeast extract

From a nutritional point of view, yeast extract is a rich mix of proteins, amino acids, carbohydrates, vitamins, and minerals. It therefore not only adds taste and brings out flavours in our foods, but it also adds complexity to them.

The sum of its natural ingredients

The three steps that transform yeast into yeast extract

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What is the difference between fresh yeast and yeast extract?

Yeast – also used in bread, beer and wine – is the basic ingredient of yeast extract. Natural enzymes are used to break down the proteins into taste-delivering parts known as yeast extract.
Yeast extract and glutamate

Glutamate is present in all protein rich foods for instance in meat, fish and even in pulses. Moreover, glutamate is formed naturally through the enzymatic ripening process in foodstuffs and sometimes in appreciable amounts, for instance in tomatoes and Parmesan.

Yeast extract is a rich mix of protein components. As glutamate is part of any naturally occurring protein, it is also present in yeast extract. However, the glutamate only accounts for approximately 5% of the total extract. In comparison with other foods we consume daily – including tomatoes, mushrooms and cheese, the glutamate level of yeast extract is therefore very low. For instance, one tomato contains approximately twice the amount of glutamate present in 200 ml of yeast extract flavoured bouillon.

<table>
<thead>
<tr>
<th>Food item</th>
<th>Available glutamate (mg/100g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken</td>
<td>22</td>
</tr>
<tr>
<td>Emmental</td>
<td>308</td>
</tr>
<tr>
<td>Tomato</td>
<td>246</td>
</tr>
<tr>
<td>Green peas</td>
<td>106</td>
</tr>
<tr>
<td>Mushrooms</td>
<td>42</td>
</tr>
<tr>
<td>Bouillon containing yeast extract</td>
<td>40</td>
</tr>
</tbody>
</table>

Yeast extract is often mistaken with monosodium glutamate (MSG) – a common flavour enhancer – despite the fact that these ingredients differ strongly, both in composition and function. While yeast extract is made up of a rich mix of proteins, vitamins and amino acids, MSG is composed exclusively of glutamate salt. As a result, monosodium glutamate does not have a taste of its own and is only used to make existing flavours stronger.

In addition, the human body also produces glutamate. Indeed, glutamate is naturally present in our saliva, and in a rather high concentration in the breast milk of mothers. Independent nutritional authorities, such as the German Nutrition Society (DGE), confirm its role in the transmission and conversion of information within the human brain.

Glutamate is one of the components present in every natural protein and is therefore also one of the many components of yeast extract. However, only about 5% of glutamate is present in yeast extract. The human body also produces glutamate – both in saliva and breast milk, and it plays a functional role in our metabolism.
About EURASYP

What is EURASYP?

“EURASYP” is the abbreviation for the European Association for Specialty Yeast Products, which represents producers of yeast-based products, including yeast extract.

What does EURASYP do?

EURASYP represents the interests of its international members. One of the main goals of the association is to disseminate information to the general public, thereby strengthening the awareness of specialty yeast products. This includes yeast extract as an ingredient in the production of products and dishes.

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