



## Fact Sheet

### Why use a bath additive?

Adding things to bath water that improves the feel and condition of the skin has been practised for hundreds of years. History records most famously that Cleopatra used to take baths in asses milk. Bathing at spas has also been well documented across the centuries.

In more recent times, in the 1960s, bath additives became part of the management of dry skin and eczema on a formal basis. Prescribing of such formulations was very common; indeed prescribing of products to add to the bath was higher than emollient creams at this time. Over the last 20 years prescribing of creams has come to the fore, and cream formulations are the most frequently prescribed products for dry skin conditions.

#### What is a bath additive?

Sometimes referred to as bath emollients or bath oils, these products have been formulated to disperse in bathwater, and the emollients in them are usually small chain oils, so that they do disperse readily. Light liquid paraffin is the most frequently used ingredient.

The products themselves contain no water, and for this reason they do not need to contain preservatives. In the simplest form they are just oil and a dispersing agent, to make the oil disperse into the water. The visible sign of this is that the bath water turns milky.

#### What does a bath additive do?

There are 2 key actions.

Firstly, there is the action of the water. When the skin becomes dry, there are many actions at play. One action is that as they dry out, skin cells become smaller allowing the gaps between them to become bigger. It is through these gaps that water can escape to make the skin even dryer, and also through which allergens can pass into the skin to cause irritation. When sitting in a bath of water, water passes into the skin cells allowing them to plump up, reducing the size of the gaps and the passage of things between them.



Secondly, the oil dispersed into the water is also drawn onto the skin's surface. More than half of the oil added to the water is drawn onto the skin's surface, over a period of about 20 minutes. This fine oil coats the surface of the skin cells to reduce further water loss, and also helps the skin to feel silky.

### **Why is it important to use bath additives?**

When the skin is dry, it can be likened to soil that has become dry during a drought. If it then rains, the water just runs off the surface before it gets chance to penetrate. It needs prolonged steady rain to get the water into the depth of the soil. When the skin is dry, applying cream to the surface can seal the gaps at the surface, but it takes a long time for the action to have any effect on the dried out skin cells within. Taking a bath, with a bath additive added, is the route to getting fast hydration of the cells.

By taking a bath every day, the deepest parts of the epidermis can be refreshed with water, and this then is a perfect substrate upon which emollient creams and ointments can play their part. In addition, the act of bathing helps to remove skin cells and dirt, keeping the skin fresh and clean.

### **Would the bath on its own work?**

The simple answer is yes. BUT, taking a bath in pure water will allow the skin cells to absorb moisture, but when water alone is used, the skin can be left irritated. Adding a bath additive seems to make the process more acceptable, and causes less irritation.

The other aspect is that taking a bath is rarely just the exposure to water. Soaps or other washing products are often used, and these can also cause a detrimental effect. The key effect is one of increasing the pH of the skin, which makes it more alkaline. Under these conditions, the enzymes that control the shedding of the skin become much more active, causing the skin to shed prematurely, becoming both thinner and rougher. In addition, soap and detergent can wash away any valuable natural skin oils that have been accumulating.

In an earlier section a reference was made to the agent that helps the bath oil to disperse through the water. These agents are also known as surfactants. One of their properties is that they are good cleansers. The combination of water, oil and the surfactant, together of course with some gentle washing/rubbing, removes dirt from the skin.

### **What is the alternative to using soap?**

The answer is to use an emollient.

All emollient creams work well as soap substitutes. Their action is to emulsify dirt and bacteria into the product so that they can then be rinsed off. Generally emollient creams have a pH which is the same as the skin, so that they do not stimulate the reactions in the skin that can be stimulated by soap.



### Does the Oil actually get absorbed?

Yes it does. Studies have demonstrated that half of the oil in the water is absorbed into the skin. Having enough oil in the water, as per the directions, and staying in the bath for at least 10 minutes, are key in the achievement of this. Because the concentration of emollient in the products is so high, more oil can be put into the skin by taking a bath, than by an application of an emollient cream.

*Information written and supplied by Genus Pharmaceuticals Ltd distributors of the Cetraben range including Cetraben Emollient Bath Additive.  
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