

36024 Litmus

CAS 1393-92-6

Litmus is a blue/purple dye made from more or less gray lichen. The lichens are mainly *Rocella tinctoria*, as well as many other lichen species (formerly from the Netherlands, the Canary Islands, Norway or Iceland; today from Mozambique and California).

Litmus is a natural mixture of around 10 to 15 different similar lichen dyes. The dye used to be extracted from *Rocella tinctoria* lichens by slowly draining off water. Since the 18th century, the dye has been obtained from southern lichens by extraction with alkalis such as ammonium carbonate.

Litmus has the property of changing color depending on the pH, at alkaline pH (greater than 7) litmus is blue, at acidic pH (below 7) the color is red. This pH indicator property of litmus has been known since around the year 1300 by Arnaldus of Villanova.

In the Middle Ages, litmus was often used to color manuscripts, especially on parchment. Litmus was used on a large scale for bluing laundry and food. Its use as an indicator dye for assessing the pH value only declined at the end of the 20th century with the development of universal indicator papers.

The dye can be painted as a solution in water with gum arabic or watercolor binder and is quite lightfast (the lightfastness according to the international wool color scale is unknown).

Properties

Solid, blue-violet, odorless, largely soluble in water.

Formerly used as a food colorant, no longer permitted in the EU today