

## What does the VOC Directive actually mean?

**VOC stands for “Volatile Organic Compounds.”**

“Volatile Organic Compounds” = “Chemical Organic Solvents.”

The VOC values at LEINOS are calculated precisely by our software. They are all below the legal EU limits from January 1, 2007, and almost all are already below the EU limits from January 1, 2010.

## What exactly are drying agents?

Drying agents (also known as siccatives) are substances that shorten the drying time of oil-based paints by accelerating the polymerization triggered by atmospheric oxygen on the paint surface. Polymerizations are compounds that combine from low molecules to macromolecules, i.e., to a large, solid, bound (in simple terms) block.

Chemically speaking, siccatives are metal soaps that are evenly distributed in varnish and lacquer substances and thus have a particularly strong catalytic effect. Cobalt, manganese, zinc, zirconium, and calcium soaps are primarily used as siccatives. Lead soaps were also used in the past, but these have now been banned for environmental and health reasons. Today, drying agents (metal soaps) are produced and used in higher alcohols and mostly as high-solid products bound in soy (without aromatic solvents).

All drying agents (metal soaps, siccatives) are firmly bound by their compound, as well as in their effect as a catalytic force (polymerization), and are therefore not present as free metal.

Finished products that contain the concentrations recommended by the manufacturer and whose processing instructions are followed by the processor are not hazardous substances.

Reincke natural paints use only vegetable oils, resins, and waxes as binders. Highly unsaturated linseed oil is particularly important in this context. The oil dries to form resilient surfaces by absorbing oxygen and under the influence of light. This oxidative drying is a chemical process that is relatively slow on its own.

To accelerate the drying process, drying agents have been added as catalysts since ancient times. Reincke Naturfarben has used only lead-free drying agents from the very beginning.

One of the special properties of cobalt dryer is rapid surface drying. To achieve a balance between surface and through-drying, combinations with other dryers are necessary.

## What does “nature-identical” actually mean?

LEINOS uses natural substances and nature-identical substances as raw materials for its products. These natural substances come from the earth as minerals or from renewable plants.

Nature-identical substances are substances that are similar in composition to natural substances, but unlike natural substances, they are produced chemically and synthetically.

### **This is done for the following reasons:**

1. The various natural substances are not available in sufficient quantities in nature.
2. The natural substances required are heavily contaminated. Purification would make these raw materials unaffordable.
3. The natural substances required are so expensive that they are unaffordable.

### **Examples of the above reasons:**

Re 1: LEINOS does not use such substances.

Re 2: Terra di Siena consists of iron oxide and is mined in southern Europe. The pure colors have now been mined out and only relatively contaminated deposits are available. LEINOS therefore uses synthetic iron oxides that are identical to Terra di Siena – i.e., identical to nature.

Re 3: Ultramarine is the coloring pigment of the semi-precious stone lapis lazuli and was worth its weight in gold as a paint pigment in the Middle Ages. For this reason, ultramarine was first produced synthetically in 1828 by Gmelin in Tübingen and Köttig in Meissen. Since then, ultramarine has been available as an affordable pigment.

**ATTENTION:** For optimal results, please observe the technical data sheets for all products used. These are available from your dealer or at [www.LEINOS.de](http://www.LEINOS.de). The information is based on our current knowledge and experience. However, it does not constitute a guarantee of product properties and does not establish a contractual legal relationship.