

## Technical Data Sheet

# KUNOS Natural Oil Sealer No. 244

<b>Application range</b>	For interior solid timber, e.g. furniture and floors as well as Multiplex. Suitable for OSB on walls and ceilings. Only to a limited extent suitable for veneers and plywood (see page 2 – important tips). Not suitable for chipboards, stained wood or cabinet interiors.			
<b>Technical qualities</b>	Reinforces and deepens the natural color of the wood grain. Satin glossy finish. Water-resistant. Complies with the German Industrial Norm DIN 53 160 for color fastness when exposed to perspiration and saliva. Complies with the German Industrial Norm DIN EN 71 Part 3, suitable for toys. Free of organic chemical compounds according to DIN EN 71 part 9. Elasticity according DIN 55669. Abrasion resistance according ASTM D 9680.			
<b>Full declaration</b>	Depending on color in different proportions: Linseed oil, linseed oil - stand oil - natural resin ester, linseed oil - wood oil - stand oil, highly transparent iron oxide, titan dioxide (only included for colors with white content), natural resin glycerol ester, linseed oil - stand oil, orange oil, isoaliphates, silicic acid, micronized wax, rosemary oil, dehydrated amino sugar and drying agents free of lead (Ca, Mn, Zr).			
<b>Colors</b>	002 Clear 054 Mahogany 062 Walnut 064 Dark walnut 069 Tobacco 076 Oak	082 Rosewood 088 Smoked oak 089 Antique oak 101 Black 204 White 425 Elm	426 Elm grey 427 Elm dark brown 428 Cherry honey 429 Cherry intensive 431 White oak 437 Black Bean	438 Cocobolo 439 Bongossi 465 Cherry 748 Slate grey 794 Agate grey 922 Silver grey
<b>Dilution</b>	Ready to use for painting. For spraying add max. 5 – 10 % SVALOS Spray Thinner No. 293. For dipping adjust with max. 10 – 20 % SVALOS Spray Thinner No. 293.			
<b>Application</b>	Usage at temperatures above 16°C (61°F). For all colored applications: only with a brush, flat brush or shorthair roller. With color clear also possible by spraying, dipping, with a cloth-bale, single disc rotary machine or with an orbital sander/disc-type sander.			
<b>Coverage</b>	First coat: 45 ml/m <sup>2</sup> i.e.1 liter (1.06 quart.) is sufficient for appr. 22 m <sup>2</sup> (237 ft <sup>2</sup> ) Second coat: 11 ml/m <sup>2</sup> i.e.1 liter (1.06 quart.) is sufficient for appr. 90 m <sup>2</sup> (968 ft <sup>2</sup> ) Third coat: 4 ml/m <sup>2</sup> i.e. 1 liter (1.06 quart.) is sufficient for appr. 250 m <sup>2</sup> /l (2691 ft <sup>2</sup> ) The indicative values may vary depending on the pre-sanding, type of wood and wood material.			
<b>Cleaning</b>	Clean equipment immediately after use with SVALOS Thinner No. 222 or LEVO Brush Cleaner No. 997.			
<b>Drying time</b>	At 23°C (73°F) and 50% relative humidity: First coat 12 hours, subsequent coats 24 hours. At higher temperatures, please consider shorter drying times and polish more quickly (see also second page). At lower temperatures and higher humidity, please consider longer drying times.			
<b>Specific gravity</b>	Approximately 0.89 g/ml.			
<b>Safety advice</b>	<p>Ensure good ventilation during and after application. Always be sure to store cleaning cloths, polishing pads, sponges, etc. that are still wet or even slightly moist with KUNOS Natural Oil Sealer No. 244 in an airtight metal container or in water until their disposal, as there is a danger of spontaneous combustion caused by the plant oil content. The liquid or applied product is not self-ignitable.</p> <p>P102 Keep out of reach of children. P301+P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a doctor. EUH208 Contains limonene (orange oil). Can cause allergic reactions. EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist. Hotline for allergy sufferers: +49 (0)5825 / 8871.</p>			
<b>Disposal</b>	According to locally regulated laws.			
<b>Container sizes</b>	0.05 l; 0.1 l; 0.25 l; 0.375 l; 0.75 l; 2.5 l; 10 l; 30 l.			
<b>Storage</b>	Cool and dry. Shelf life: unopened at least 4 years. Transfer unused product into a smaller container for storage in order to minimize excess air.			

## How to use

# KUNOS Natural Oil Sealer No. 244

<b>Wood</b>	<b>Preparation</b> Wood must be dry (moisture content below 12 %), solid, able to absorb, free of resin and dust. Pre-sanding in stages according to the gradation of the sandpaper - grain, for <b>furniture</b> up to 240 grain, except for oak 180 grain, <b>for floors</b> up to 180 grain (e.g. with roller sander up to 120 grain and with suitable sanding equipment up to 180 grain).
<b>Application</b>	Stir thoroughly. Remove possible skin formed on surface. Test application! Depending on surface requirement, absorbency and kind of wood: apply 1 - 3 thin coats until a coating layer has developed. For floors at least 3 coats.  <b>1st application:</b> generously (with a brush, surface brush, short-pile roller or single-disc rotary machine) and polish in after 10 - 15 min and, if necessary, remove any excess (with a grain-free pad (oil absorbent pad) and polishing machine (random orbital sander) or a lint-free cotton cloth). The harder the wood (for example walnut), the longer it needs to absorb the oil, but a maximum of 25 minutes. <b>2nd and 3rd application:</b> spread dropwise (approx. 1 teaspoon per m <sup>2</sup> ) and polish immediately with a grain-free pad and polishing machine (random orbital sander) or a lint-free cotton cloth.  For particularly smooth, hard-wearing surfaces, intermediate sanding after the first application. For furniture with pad, fleece or the like, with at least 280 grit. For floors, no intermediate sanding is necessary if the excess oil has been carefully removed (e.g. with an oil absorbent pad) after the 1st rich application.  <b>All colored applications</b> are to be done only with a brush or roller. Do not polish and spread excess oil after 15 minutes onto still absorbent areas.
<b>OSB</b>	After pre-sanding with a sanding grit 120 – 180 grain (not with a roll grinding machine, as too much of the functional surface will be milled away), apply 3 very thin coats of KUNOS Natural Oil Sealer No. 244 clear or colored. Determine the exact amount needed by doing a test application.
<b>Renovation of old Floors and furniture</b>	Pore-clogged coatings (oil-based paints, lacquers, multi-layered coatings) and wax coatings must be sanded or stripped until there is no old residue. Open-pored old coatings must be cleaned and, if necessary, slightly sanded. Test the surface for absorbency and sustainability. Preparation and application are according to the wood description above.
<b>Cleaning and care</b>	Clean with TRENA pH-Neutral Cleaner No. 556 diluted in water. Wipe it with a moist, but not wet cloth. Every 4th to 5th cleaning should be done with GLANOS Natural Liquid Wax Cleaner No. 559 instead of TRENA. After-treatment with KUNOS Maintenance No. 1862 or KUNOS Maintenance No. 1893, if the surface looks matt.
<b>Important tips</b>	The finer the sanding, the lower the coverage. This also reduces the tendency of “wear and tear” and soiling of the surface. When sanding too coarse, the surface tends to water-sensitivity and the possibility of green coloration increases. The longer KUNOS No. 244 has a chance to interact, the stronger is the reinforcing and deepening of the natural color of the wood grain. In the grooves, KUNOS Oil No. 244 should be completely removed. Discoloration is possible by water if the wood is not completely saturated with KUNOS Natural Oil Sealer, or where a coating layer did not form. A more homogeneous surface appearance is achieved with an after-treatment with ALISA Hard Wax No. 302.  In case of <b>veneers</b> and <b>plywood</b> , the first coat should be applied sparingly and the wet film should be removed after 5 minutes. KUNOS is <b>not suitable</b> for veneers and board layers (plywood) with <b>a layer thickness of less than 0.5 mm</b> (after sanding) KUNOS is not suitable. Adhesives and glues must be completely dry before applying the 1 <sup>st</sup> coat.  To preserve the color of light woods like maple or birch, the first coat is done with color white. Thereafter 2 applications with KUNOS Natural Oil Sealer No. 244-002 clear.  In the case of white, white oak, agate gray yellowing is possible with low light incidence.  In the first 4 weeks after the last application, the coating hardens slightly internally. During this time, standing water, flat covers and mechanical stress should be avoided. The surface can otherwise be used normally.

These directions are the result of long years of research and practical testing. They are backed by our most current expert information. New findings may invalidate this information. The latest version is available on our website at [www.livos.de](http://www.livos.de). This data sheet is meant to serve as information and instruction. No legal liability should be interpreted from it. In case of doubt, please contact the LIVOS customer service (see p. 1) .