

## ARL 056 - Working guideline for the use of wood preservatives

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### 1 What are wood preservatives?

Wood preservatives are biocide-containing chemical preparations to protect wood construction elements from fungal and insect infestation.

We have always been committed to testing and certifying the effectiveness and safety of our wood protection products. This is based on the Austrian register of wood preservatives (ARGE wood preservatives consortium, Association of the Austrian chemical industry). The wood preservatives entered in the directory have been tested for their efficacy, toxicologically examined and evaluated by a neutral institute. This ensures that they are both effective and toxicologically harmless when used properly. The consistent quality of the wood preservatives approved by the audit committee is guaranteed by the obligation to monitor quality, consisting of in-house and external monitoring.

Wood preservatives are regulated by European legislation on the basis of the Biocides Regulation (EU) (No. 528/2012). According to the application areas (usage classes), the wood preservatives are registered, tested and approved as a product type "PT8" according to the biocidal products directive. The approval procedure evaluates the efficacy and safety of the products.

For the distribution to individual countries of the EU, an approval or recognition by the respective country-specific authority is also required. The need for approval depends on the active ingredients and active ingredient combinations used. These are processed step by step, i.e. depending on the product and the biocides used, different deadlines apply for a required certification. **It is understood that all our wood preservatives are approved according to the EU Biocidal Products Regulation.**

01-20 (supersedes 10-16)

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Our instructions for use are based on knowledge available currently and shall guide the buyer/user to the best of one's knowledge, but, however, must be clarified for the areas of application and processing conditions on a case-to-case basis. The buyer/user takes responsibility for the suitability and use of the delivered product. It is therefore recommended to produce a sample specimen for testing the suitability of the product. Otherwise our General Terms of Sale apply. All previous specifications become invalid with this edition. Packaging sizes, colors and available gloss values are subject to change.

## 2 Why is chemical wood preservation necessary?

Wood preservatives are needed to protect wood and wood based materials(e.g. for fences, roof trusses, wooden cladding, pergolas, windows, wooden houses, etc. so always only outdoors) against infestation by wood-discolouring or wood-destroying organisms such as fungi and insects. The use of chemical wood preservatives is, apart from constructive measures and the selection of suitable wood species, only one area of wood preservation, which also protects wood from other damaging influences such as water or UV light. Therefore, before using wood preservatives, it should always be checked whether their use is really necessary, and structural and design measures should always be given priority. Information on the professional use of chemical wood preservatives can be found in the Austrian Wood Preservatives Register of the Working Group Wood Preservatives.

The efficacy of tested wood preservatives is confirmed by the following test marks:

- B** preventively effective against blue stain
- BS** preventively effective against superficial blue stain
- P** preventively effective against fungi (rot protection)
- Iv** preventively effective against insects
- Ib** effective for insect combating
- W** resistant to weathering and moisture; required for wood outdoors, but not suitable for wood in permanent ground contact and in permanent contact with water
- E** for wood in permanent ground contact and/or in permanent contact with water

**Tab. 2.1:** Use classes (GK) according to the Austrian register of wood preservatives

GK		Wood moisture	Condition of installation	Effective-ness *
0		Wood humidity constantly max. 20%; average relative humidity max. 85%; real humidity only briefly over 85%.	Wood used in rooms with normal room climate or comparable rooms	No wood preservative is required
1		Wood humidity constantly max. 20%; average relative humidity max. 85%; real humidity only briefly over 85%.	Wood under roof, not exposed to weathering or humidification	Iv **
2		Wood moisture occasionally briefly over 20%; average relative humidity over 85%	Wood under roof, not exposed to weathering; high ambient moisture or moisture penetration, e.g. from condensation, can lead to occasional moistening	B, P, Iv **
3	3.1 <sup>a</sup>	Wood moisture occasionally over 20%.	Wood under roof, exposed to weathering, without constant contact with the ground and/or water; rapid water drainage and good ventilation, thus ensuring rapid drying	B, P, Iv, W **
	3.2 <sup>a</sup>	Wood moisture often over 20%; no long-term / permanent moisture penetration	Wood not under roof, exposed to weathering, without constant contact with ground and/or water; rapid water drainage or rapid drying, not guaranteed	B, P, Iv, W **
4		Wood moisture predominantly to constantly over 20%.	Wood in constant contact with ground and/or water	P, Iv, W, E **

- <sup>a</sup> The usage classes 3.1 and 3.2 refer to the fitting position of a wooden construction element. With regard to the effectiveness of a wood preservative, no distinction is made between 3.1 and 3.2.
- \* Required effectiveness of the wood preservative.
- \*\* Exceptions and detailed specifications are listed in the Austrian register of wood preservatives.

### 3 Where are wood preservatives not used?

As a matter of principle, wood preservatives should never be used in places where fungal and insect infestation cannot occur. In dry interior rooms, e.g. for panelling, the impregnation of wood is generally not necessary. Exceptions are windows or wooden construction elements that have a supporting function. Fungal infestation occurs only in case of wood moisture over 20 % and a temperature above 20 °C. In the interior of the house, wood moisture is max. 12 %, so that no fungal infestation is expected and the use of wood preservatives is not necessary.

In summary, it can be held that: wood preservatives contain biocidal active substances for protection against fungal and/or insect infestation. They must therefore only be used if a protection of the wood is prescribed or necessary in individual cases. Do not use on large areas indoors, but in no circumstances in living rooms or bedrooms.

Do not use for the treatment of areas where food or animal feed is obtained, produced, stored or sold.

Do not use for wood in sauna facilities or for apiaries and greenhouses. Do not apply to areas used by bats.

Do not use on wood that could come into direct contact with farm animals (e.g. in stables or pasture fences).

### 4 What precautions should be taken when processing wood preservatives?

**Use wood preservatives safely. Always read the label and observe the relative technical data sheets of the products before use.**

- Always observe the safety advice on the containers.
- Wood preservatives must always be kept away from children.
- Due to the contained biocides, wood preservatives must not be sprayed (health and environmental protection). Exception: closed application system.
- Avoid contact of wood preservatives with the skin.
- Wash your hands after use.
- Do not eat, drink or smoke whilst working.
- Remove contaminated clothing and protective equipment before entering areas where food is eaten.
- Do not store food and drinks together with wood preservatives.
- For wood preservatives, do not use containers that are normally intended for food.
- Keep away from food, drink and feed.
- Use only in well-ventilated areas. Use of local and general ventilation.
- Due to the contained biocides, wood preservatives should not enter the soil, so make sure that wood preservatives are not spilled. For professional and industrial use, use only in fixed places and preferably only in designated indoor areas (e.g. factory halls).
- No application in the immediate vicinity of water.

- Wood freshly treated with wood preservative must be stored after coating on an impermeable, hard substrate to prevent product residues from penetrating into the ground or water. Any leaking product must be collected for reuse or disposal.
- Keep away from ignition sources - no smoking. Ground the container and the system to be filled.

#### 4.1 Personal protective equipment

- Do not inhale gases/vapours/aerosols.
- Use butyl rubber protective gloves as splash protection for short-term work.
- The exact breakthrough time must be obtained from the protective glove manufacturer and observed.
- If there is a risk of splashing, use safety goggles with side protection.
- Wear antistatic work clothing (e.g. made of cotton). For uncovered parts of the body use oil-in-water emulsion as skin protection.

## 5 Storage of wood preservatives

As a matter of principle so that they cannot get into the hands of children. Keep wood preservatives well sealed, cool but frost-free, in a well-ventilated place. Protect against the sun. Cloths impregnated with wood preservatives containing solvents are prone to self-ignition and must be kept out of the house in closed sheet metal containers and disposed of professionally as soon as possible.

## 6 Disposal of wood preservatives

Do not allow wood preservative to enter the canalisation and avoid its release into the environment. Refer to special instructions/safety data sheet. Please observe the relevant national or regional regulations. Waste must be separated in such a way that it can be treated separately by municipal or national waste facilities.

Contaminated containers and packaging are hazardous waste, only approved packaging (e.g. according to ADR) may be used. Completely emptied packages can be recycled. Contaminated packaging shall be treated as the substance itself.

#### Relevants provisions relating to waste

List of wastes, Decision 2000/532/EG on a list of waste

- Product: 03 02 05x other wood preservatives containing dangerous substances
- Packagings: 15 01 10x Packaging containing residues of dangerous substances or contaminated by dangerous substances

List of wastes (ÖNORM S 2100)

55508: Coatings, if they contain solvents and/or heavy metals and/or biocides and not fully cured residues in containers.

## 7 First aid measures

### General observations:

Do not leave the person concerned unattended. If symptoms occur or in case of doubt, ask for medical advice. If unconscious, use stable lateral position and do not administer anything by mouth. Take off all contaminated clothing immediately. In case of accident or unwell feeling, ask for medical advice immediately (show the related product label if possible).

### After inhalation:

Provide fresh air. If breathing becomes irregular or stops, seek medical attention immediately and initiate first aid measures.

### After skin contact:

Take off contaminated clothing. On contact with skin, take off immediately all contaminated, soaked clothes and wash the skin immediately with plenty of water and soap. Do not use solvents or thinners!

### After contact with the eyes:

Remove any existing contact lenses if possible. Keep rinsing. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Keep eyelids open and rinse thoroughly with clean, running water for at least 10 minutes.

### After absorption by swallowing:

Rinse mouth with water (only if the accident victim is conscious). Do NOT induce vomiting. Keep calm. IF SWALLOWED: call a doctor immediately.

## 8 What measures should be taken in the event of accidents or fires?

In case of accidents with wood preservatives, bring all persons to safety and ensure adequate ventilation. Avoid dust formation. A respiratory protective device must be worn if exposed to vapours, dusts, aerosols and gases.

Wipe up leaked wood preservatives with absorbent material (e.g. cloth, fleece) or absorb them with sawdust, diatomite, sand, universal binder and dispose of them properly. Prevent penetration into the sewage system or into surface and ground water. Retain and dispose contaminated washing water. If the substance enters open water or sewage systems, notify the competent authority. Dilute with plenty of water.

When extinguishing fires involving wood preservatives, the recommended extinguishing agents are carbon dioxide (CO<sub>2</sub>), BC powder, spray water, alcohol-resistant foam and sand. If possible, no water should be used! (if not otherwise possible, the water used for fire-fighting must not get into sewers and waters. Contaminated extinguishing water must be collected separately)

Further information on the subject of safety during transport, storage and handling as well as disposal can be found in the relevant safety data sheet. The current version can be accessed on the Internet at [www.adler-lacke.com](http://www.adler-lacke.com).

## 9 Labelling of goods treated with wood preservatives

In the case of goods treated with wood preservatives and where biocidal properties (e.g. protection against wood-destroying or wood-colouring fungi) are specified, the following instructions must be followed in accordance with the European regulation on biocidal products which entered into force on 01.09.2013.

- The person responsible for the sale of goods such as doors and windows must mark these goods with the information listed below, for example for Aquawood Primo A1 - A6, as shown below.
- The marking must be clearly visible, legible and sufficiently durable. If the size or function of the treated goods requires it, the label must be printed on the packaging, the instructions for use or the guarantee certificate.

Example: Data sheet for goods treated with Aquawood Primo A1 - A6:

This product has been treated with wood preservatives (regulated by the Biocides Regulation 528/2012, Pt8)	Aquawood Primo A1 - A6
a) Goods treated with Aquawood Primo A1 - A6 contain:	Biocides approved for product type 8
b) Goods treated with Aquawood Primo A1 - A6 are protected against:	Wood-destroying or wood-colouring fungi
c) Goods treated with Aquawood Primo A1 - A6 contain the following biocidal substances:	Tebuconazole, IPBC
d) Goods treated with Aquawood Primo A1 - A6 contain the following nanomaterials:	-
Manufacturer of the Aquawood Primo A1 - A6:	ADLER Werk Lackfabrik Johann Berghofer GmbH & Co KG Bergwerstraße 22 A - 6130 Schwaz Tel.: +43 5242 6922 0

**As regards the scope of application within the framework of DIN 68800, the following information request shall also apply, which must be included in the accompanying documents.**

- Preventive protection of wood with wood preservatives according to DIN 68800-3: 2012-02 for non-load bearing timber components
- Wood preservatives: Aquawood Primo A1 - A6
- Registration number for Germany: DE-2013-BPF-08-00001-aaa
- Registration number for Austria: AT/2014/Z/00167-BPF/8
- Category of use: GK 3.1
- Penetration depth category: NP 1
- Application quantity: 120 g/m<sup>2</sup>
- Name and location of the executing company, if necessary encrypted
- Batch no. of Aquawood Primo A1 - A6 and year of treatment

Reference:

Austrian register of wood preservatives - Index idgF.

FCIO – Fachverband der Chemischen Industrie (Professional association of the chemical industry)