

Preventive wood preservation: basic measures

The Control Guidance Sheet details the fundamental organisational and hygiene rules for preventive wood preservation and describes the general information and measures that protect the professional user from excessive exposure to hazardous substances. It serves as a checklist for the employer or their representative.

In the event that a product's directions for use (e.g. on the label, instruction leaflet or safety data sheet) demand greater protective measures than those stated here, the manufacturer's information takes priority.

This Control Guidance Sheet does **not** apply to **curative** wood and material preservation.

Gathering of information and internal labelling

- A **risk assessment** is to be conducted before carrying out an activity involving hazardous substances.
- A **hazardous substances list** with reference to safety data sheets is kept and is updated regularly.
- **Safety data sheets:** It must regularly be checked that the safety data sheets are up to date. Changes are to be taken into account in the risk assessment.
- **Operating instructions** are made accessible to the employees in a comprehensible form and in comprehensible language in the workplace. TRGS 555 is observed.
- The measures described in the operating instructions are implemented. The personnel are to be given a verbal briefing using the operating instructions at least once a year on all of the hazards that occur and the protective measures.
- A **skin-protection plan** is to be put up at a suitable place in the user's workplace. This provides information on the correct use of the skin products.
- The **marketability** of the biocidal products used is to be checked regularly: only authorised products are marketable; a link to a list of products authorised by the authorisation unit is provided in the chapter *Further information*. Furthermore, some products are currently still marketable due to transitional provisions; this can be checked with the product manufacturers or with the authorisation unit. Non-marketable biocidal products must not be used (this includes storage).
- **Assistants:** Untrained personnel are only deployed under the supervision of the expert and are verifiably provided with regular briefings according to their activity.
- There is little difference with regard to occupational safety and health between preventive and curative wood preservation in open applications. Differences do arise, however, from the fact that curative wood preservation is also a form of pest control, meaning TRGS 523 may also have to be adhered to.
- In preventive wood preservation, a differentiation is to be drawn between timber that is treated at plants before use (see also Control Guidance Sheets BP 2084 and BP 2083) and the treatment of installed timber (see also Control Guidance Sheet BP 2081).

Organisation of the working procedures & work organisation

- Chromate-containing wood preservatives and coal-tar creosote preparations must not be applied by brushing.
- **Restriction of application time:** The employer must ensure that the employee only handles biocides for as long as the working procedure strictly requires. Effective cleaning must be ensured after the application of biocides in order to restrict exposure to a minimum.
- **Before commencing the measure**
 - The use of non-chemical measures (e.g. constructive wood preservation) is examined, also as an additional measure where applicable; less hazardous substances and processes are to be substituted, and technical and organisational measures are to be implemented in preference.
 - It is to be ensured that the biocidal product is used in accordance with the manufacturer's directions for use.
 - All components of the equipment are checked before the first application.
 - Jewellery worn on the hands and arms is removed before work is commenced.
- **Hygiene measures**
 - Inhalation of and skin and eye contact with the agent are to be strictly avoided.

- Washing facilities shall be present and known about. Contamination with biocides is to be washed off immediately with soap and water.
- The user of the biocidal product carries with them the skin-protection equipment recommended in the skin-protection plan. Hand washing and the use of hand creams are practised regularly: at least after the use of biocides, as well as before eating, drinking, smoking and using the toilet.
- **Storage:** Work and street clothing are to be stored separately (e.g. two lockers).
- Change work clothing after completing the activity involving wood preservatives.
- Work gloves are to be removed before work that other persons carry out with unprotected hands (e.g. using the telephone, written work, use of equipment).
- Employees are to be provided with **break areas** (for eating, drinking, smoking) that are free of substances that are hazardous to health.
- The employer is to clean work and protective clothing (according to the clothing manufacturers' advice where applicable) and is to dispose of and replace it if necessary.
- Workplaces are to be tidied regularly. Wipe up dust with a moist cloth or use a suitable industrial vacuum cleaner. Splashes and spilled hazardous substances are cleaned up immediately with granulates, mats and suchlike and are disposed of properly in a sealed, labelled container.
- **Technical and organisational protective measures**
 - **Packaging:** When selecting the product, preference is given to packaging that reduces exposure (e.g. a concentrate with dissolving packaging) and/or associated dosing aids.
 - **Dosing:** Follow dosing instructions carefully. Avoid splashing when filling and transferring the wood preservatives, e.g. by ensuring a short drop height when pouring into buckets.
 - The quantity of wood preservative at the workplace is kept to that which is strictly necessary.
 - Open caps carefully.
 - Do not mix with other products or chemicals.
 - Biocidal products are **stored** in containers that clearly differ from foodstuffs and that are clearly labelled. Residual quantities and used equipment are stored under lock and key and are only made accessible to expert personnel. Large stocks are avoided.
- **Special measures for solvent-containing biocidal products (e.g. fire and explosion protection)**
 - If solvent-containing biocidal products are used in rooms, good ventilation must be ensured. This especially applies to work at ground level!
 - Work with extraction when vapours are present!
 - Keep away from sources of ignition (e.g. electric motors, switches, lamps) and open flames. Avoid shock and friction and take measures against electrostatic charge. Drifting vapours can lead to ignition even at greater distances.
 - A **fire extinguisher and fire blanket** are to be kept ready at the workplace – even when working outdoors.
- **Personal protective equipment (PPE)**
 - The protective clothing and equipment is to be matched to the products, harmful substances, and work equipment being used in the work.
 - The appropriate personal protective equipment is to be selected by the employer or ascertained from the biocide manufacturer and is to be provided if this is specified in the product's safety data sheet (sections 7 and 8) or is identified as necessary based on the risk assessment. The correctness of the selection should be confirmed by the PPE manufacturer.
 - The PPE that must be provided is to be decided according to the wood preservative to be applied, the application procedure, local conditions, and the type of pest to be controlled. In this process, account must be taken both of the active substances and of possible substances of concern (e.g. wetting agents and solvents, emulsifiers, corrosion inhibitors, stabilisers).
 - PPE must be effective, suitable with regard to its wearing properties, and in a usable, completely hygienic state. The state of the PPE is to be checked for integrity and operability before every use. Damaged PPE is to be replaced in a timely manner and properly disposed of.
 - Manufacturer instructions on the type and use of the required PPE are to be followed.
 - Wearers of PPE must be briefed on its use and care.
 - **Medical check-ups:** Corresponding duties are to be met (e.g. G26 and/or G24).
 - PPE must not be a permanent measure. It is no replacement for technical or organisational measures.
 - **Chemical protective gloves** must be used if this is required based on the risk assessment or in the biocidal product's safety data sheet. The information in the 2000 series of Control Guidance Sheets on biocides is to be observed.
 - **Respiratory protection** must be used if this is required based on the risk assessment or in the biocidal product's safety data sheet. The information in the 2000 series of Control Guidance Sheets on biocides is to be observed. Respiratory protection places a burden on the user (except hood, helmet) and should only ever be stipulated if it is necessary and cannot be replaced with technical or organisational measures.
 - If there are further hazards that are non-chemical in nature, e.g. during preparation work or during storage of the

treated wood, the protective equipment required for this is to be worn in addition.

- **After wood preservation measure is completed**
 - Treated wood is to be stored in a well-ventilated location.

Maintenance and servicing, efficiency control

- Devices for applying biocidal products:
 - are only used in accordance with the intended purpose and the manufacturer's operating regulations.
 - are inspected at least once a week for signs of damage.
 - are inspected regularly (usually at least once a year) for operability and safety according to the manufacturer's information and are compared with the performance standards. A record is kept of the result of the inspection.
 - are modified only by the manufacturer himself or by experts.
 - are only reused after the discovery of defects when they have been repaired and their safety has been checked.
 - are properly cleaned after the activity.

Additional requirements

- **First aid:** Precautions and aids (e.g. eye-wash bottle with fresh flushing fluid) for first aid are to be kept ready and their completeness and functioning checked annually. If necessary, a works doctor or occupational physician is to be consulted. A doctor is called immediately in the event of skin damage or poisoning. The employees are to be trained according to the current guidelines of first-aid measures.
- The provisions of the Act on the Protection of Young People at Work (JArbSchG) are to be observed when employing young people. The Ordinance on the Protection of Mothers at Work (MuSchArbV) is to be observed.

Further information

- Hazardous Substances Ordinance (GefStoffV), available on the BAuA's website: www.baua.de
- Act on the Protection of Young People at Work (JArbSchG)
- Ordinance on the Protection of Mothers at Work (MuSchArbV)
- Information on the authorisation status of biocidal products is available on the Federal Institute for Occupational Safety and Health's website at www.baua.de, as well as at www.biozid-portal.de.
- Technical Rules for Hazardous Substances (TRGS), esp. 401, 402, 500, 523 and 555

What must be included in the operating instructions?

- Workplace, working area, activity
- Name of and, if necessary, further declarations on the active substance
- Risks to health and environment
- Protective measures and code of conduct (skin protection: employees are briefed on the use of skin products (skin protection, cleaning and care) annually)
- Conduct in case of danger and first-aid measures in the event of accidents
- Proper disposal and destruction of waste