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Technical Rules for Hazardous Substances	Pest control using highly toxic, toxic and health hazardous substances and preparations	TRGS 523
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The Technical Rules for Hazardous Substances (TRGS) convey the status of the safety, occupational medicine, hygiene and industrial science demands on hazardous substances with regard to placing them on the market and handling them. They are established by the

Committee on Hazardous Substances (AGS)

and adapted by the Committee to the current status of development.

The TRGS are announced by the Federal Ministry of Labour and Social Affairs in the Bundesarbeitsblatt (Federal Labour Gazette, BArbBl.).

The present edition contains special protective measures to be taken in connection with pest control activities using highly toxic, toxic and health hazardous substances and preparations

Concerning the scope of application of the handling provisions contained in the Gefahrstoffverordnung (Hazardous Substances Ordinance, GefStoffV) and the generally applicable definitions, reference is made to Articles 2 and 3 of GefStoffV.

The provisions contained in the Hazardous Substances Ordinance (GefStoffV) including Annex V No. 6 of GefStoffV have been incorporated herein and marked by vertical bars on the margin.

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1 Scope

1.1 The present TRGS applies to pest control activities using highly toxic, toxic and health hazardous substances and preparations as well as preparations releasing any substances or preparations of this kind if pest control activities are carried out

- a) for commercial gain or as an independent contractor in the scope of other business undertakings on the premises of a third party, or
- b) not only occasionally and in a negligible scope for pest control in an undertaking's own establishment in which food is produced, treated or placed on the market or in his own establishment as defined in Bundesseuchengesetz (Federal Pest Control Act - BSeuchG) Section 48a.

1.2 The protective measures specified in the present TRGS shall be applied by analogy, with the exception of Sections 3 and 4 and the Annexes hereto, when carrying out other pest control measures covered by the scope of application of GefStoffV. In particular, it must be verified whether pesticides or processes associated with a low health hazard in accordance with Section 5 hereof can be used.

1.3 Pest control has already been regulated in the following other legal provisions:

- concerning fumigation, in Art. 15 d of the Gefahrstoffverordnung (Hazardous Substances Ordinance - GefStoffV)
- concerning plant protection, by the Pflanzenschutzgesetz (Plant Protection Act)
- by the Pflanzenschutzsachkundeverordnung (Ordinance concerning expert knowledge in plant protection).

1.4 This TRGS shall not apply to

- preventive pest control,
- fumigation, which is covered by TRGS 512 and 513
- disinfection of rooms using formaldehyde, which is covered by TRGS 522

- disinfection activities.

1.5 Reference is made to the following provisions which are also applicable:

- Arbeitsschutzgesetz (Safety and Health at Work Act)
- Sections 36 and 45 of the accident prevention regulations (UVV) 'General rules' (VBG 1/GUV 0.1)
- Accident prevention regulation 'Preventive occupational medicine' (VBG 100/GUV 0.6)
- Accident prevention regulation 'First Aid' (VBG 109/GUV 0.3)
- TRGS 514 'Storage of highly toxic and toxic substances in packages and non-stationary vessels'
- ZH 1/701 'Rules for the use of respirators'
- ZH 1/606 'List of certified respirators'
- TRGS 555 "Company-specific advisories and instructions"
- TRGS 222 - List of hazardous substances - index of hazardous substances -
- Accident prevention regulation 'High-pressure liquid jets' (VBG 87/GUV 3.9)
- TRB 280 - Operation of compressed gas tanks
- TRGS 507 'Surface treatment in enclosed spaces'
- Mutterschutzrichtlinienverordnung (Ordinance on the protection of pregnant and nursing women at the workplace - MuSchRiV) dated 15/04/97(Fed. Gazette p. 782)
- Zweites Gesetz zur Änderung des Jugendarbeitsschutzgesetzes (Second Act for Amending the Youth Employment Protection Act) dated 24/02/1997 (Fed. Gazette p. 311)

2 Definitions

2.1 Pesticide shall mean any substance or preparation that is used to render pests or deleterious organisms harmless, or to destroy such pests or organisms.

2.2 The active substances of pesticides listed in Annex II Number 2 of the GefStoffV may be used as a guideline in order to verify whether or not a product to be used is a pesticide.

2.3 Pesticides in accordance with Section 2.1 hereof shall be primarily used for pest control in the following areas:

- Protection of health and stored products as well as special material protection,
- Plant protection,
- Preservation and protection of wood and buildings,

- Fumigation activities in the areas specified above.

3 Notification obligation

3.1 Any person that intends to realise pest control activities pursuant to No. 1, or intends to resume such activities following a hiatus of more than one year, shall notify the competent authority of such intention six weeks in advance.

3.2 Such notification shall contain the following at a minimum:

1. Proof that the human, spatial and safety resources of the entrepreneur are adequate for the envisaged activities
2. The number of workers that will be involved in pest control activities
3. a) The designations of,
b) properties of,
c) mechanisms of action for, and
d) application methods for the pesticides that will be used for the envisaged pest control activities.
e) methods for minimising pesticide residues,
4. The area in which the envisaged pest control activities are to be realised, as well as the target organisms for such activities.
5. Results of the tests performed under GefahrstoffV Article 16 (2).

3.3 Any changes of the parameters specified in Section 3.2, Nos. 1 to 5, shall be notified.

4 Personnel

4.1 Adequate human resources shall be deemed to be available for pest control activities insofar as suitable qualified persons (persons with expert knowledge) are employed. Persons shall be deemed qualified insofar as they meet all of the following criteria:

1. They are 18 years of age or older,
2. They possess a sufficiently developed sense of responsibility to handle pesticides,
3. They possess a doctor's certificate pursuant to Article 30 of the GefStoffV attesting to the fact that
the applicant appears not to be physically or mentally unfit to handle pesticides,
and

4. They are in sufficient command of the German language.

4.2 The examination for the doctor's certificate mentioned in Section 4.1 No. 3 shall be performed in analogy to the recommendations of the Federal Ministry of Labour concerning the performance of the eligibility examination of applicants for competence certificates for fumigation activities in accordance with Annex V, Number 5.2 (2) No. 2 of the GefStoffV. (Federal Labour Gazette 5/93 edition, p. 67). For a "Sample certificate concerning the eligibility test" refer to Annex 6 to TRGS 512.

4.3 Persons with expert knowledge

4.3.1 Persons shall be deemed to have expert knowledge insofar as they meet all of the following criteria:

1. They have successfully passed the examination mandated by the currently applicable version of the Ordinance Regarding the Certification Examination for Licensed Pest Control Specialist of March 19, 1984 (Verordnung über die Prüfung zum anerkannten Abschluss „Geprüfter Schädlingsbekämpfer/Geprüfte Schädlingsbekämpferin“ vom 19. März 1984 (Fed. Gazette I p. 468)); or
2. have successfully passed the examination for master or qualified assistant pest control specialist (Prüfung zum Gehilfen oder Meister für Schädlingsbekämpfung) pursuant to superseded or enforceable regulations in the former German Democratic Republic; or
3. have acquired qualifications comparable to those specified above in a Member State of the European Community; and

4.3.2 A person shall also be deemed qualified for pest control activities insofar as such person has successfully passed an examination or successfully taken a training course that is recognised by the competent authority as being the equivalent of the examinations and certifications specified in Section 4.3.1 hereof.

A person that engages in pest control activities that are limited to a specific application domain shall be deemed qualified to realise such activities insofar as such person has successfully passed an examination or successfully taken a training course that is recognised by the competent authority as adequate certification for such activities.

4.4 Whether or not an examination or a course of training can be recognised as being equivalent or appropriate, shall be assessed for the purposes of Section 4.3.2 hereof on the basis of the criteria for recognition specified in Annex I hereof.

4.5 The qualified expert shall regularly undergo specific further training.

5 Pesticides - selection and list

5.1 The employer shall verify whether pesticides posing a lower risk to health than the agents envisaged by him are available for the target area and the target type of pest. If he can be reasonably expected to use such pesticides, and if substitution is necessary to protect the life and health of the workers, he shall use such substitutes only. Where it is not possible to protect the life and health of the workers against the risks resulting from the presence of hazardous substances at the workplace by other means, the employer shall verify whether or not the presence of such substances at the workplace can be avoided or restricted by changing the method of production and use or by using low-emission types of application of hazardous substances. If this is technically feasible, and if the employer can be reasonably expected to implement such measures, the employer shall change the method accordingly, or apply the low-emission types of use. The results of the assessments carried out under the 1st and 3rd sentence hereof shall be recorded in writing and submitted to the relevant authority on request.

5.2 The assessment carried out under Section 5.1 above shall account for the following principles of reducing risks:

- Application of suitable diagnostic methods prior to and after the application of the substance in order to determine the places infested and the degree of infestation with parasites,
- Use of mechanical-physical methods (traps, bait, gratings, adherents, etc.),
- Targeted treatment of hiding and resting places and/or running paths,
- Use of graduated methods,
- Application of short-term agents where possible (except where insect growth regulators and baits are used),
- The choice of means should be matched to possible inactivating properties of the surfaces to which the pesticide is applied (pH, humidity, temperature, charge, contamination including accumulation of dust, etc.),
- Application of pesticide concentrations and quantities commensurate with the type of pest and its development stage.

5.3 The employer shall maintain an index of the pesticides that are handled by him. The index shall contain the following information at a minimum:

1. Designation of the agent,
2. Classification of the agent or specification of its hazardous properties,
3. Range of quantities of the agent in active use,
4. Working areas in which the agent is handled.

The working areas mentioned in the 2nd sentence No. 4 hereof include the partial areas in which the establishment performs pest control activities, for example. (Not necessary if outlined in the notification under Section 3 hereof). The information may

be stored as hardcopies or on electronic data carriers. The index shall be updated to reflect substantial modifications and shall be verified at least once per year. It shall be stored in a place where it is readily at hand and submitted to the relevant authorities on request.

6 Organisational measures

6.1 Pest control shall be realised in such a way as to avoid any deleterious effect on human beings and/or the environment.

6.2 Pest control activities pursuant to No. 1 of the present Section shall be realised solely by persons that meet the criteria laid down in Section 4 hereof.

6.3 Unskilled workers shall be deployed for pest control activities solely under the direct supervision of a qualified person and shall receive regular instruction in regard to such activities.

6.4 Prior to performing any pest control activities, the director of the facility in question (coordinator in accordance with § 6 of UVV VBG 1/GUV 0.1) or persons affected shall be notified in writing of the envisaged pest control activity and the possible risks resulting from pesticides.

6.5 If the qualified person is not present in the place of application for the whole duration of the pest control activities, workers shall be informed about the ongoing pest control activities by means of written notices posted. These written notices shall specify:

1. the type of pest being controlled,
2. the pesticide used (trade name and labelling in accordance with Hazardous Substances Ordinance),
3. the application method,
4. the date of application,
5. the company performing the pest control activities (name, address, telephone number).

6.6 All food and feed capable of being eaten as well as all commodities and utensils (unless they can be easily cleaned) shall be removed or covered so as to prevent them from being contaminated prior to the pest control activities.

6.7 Prior to commencing the pest control activities, the following must be known:

1. location of the nearest telephone,
2. the telephone number of the rescue and medical standby service,

3. the telephone number of the information and relief centre for poisoning,
4. the escape routes, and
5. the nearest water tap.

6.8 The qualified person concerned shall ensure that the following is realised at a minimum:

1. Commencement of the activities shall be subject to implementation of all measures stipulated in the advisories,
2. The pesticide shall be used subject to the manufacturer's advisories,
3. Workers shall wear the designated personal protective equipment while performing the target activities,
4. The work area shall be configured in such a way that it can be evacuated rapidly at any time
5. Unauthorised persons and animals other than the target species shall be kept away from the working area, and the persons concerned shall have been notified in accordance with Section 6.4 hereof.

6.9 Authorisation of re-use

Any rooms in which pest control activities have been performed using pesticides shall not be authorised for re-use by the qualified person unless they can be used without any risks. The necessary measures shall be specified by the qualified person.

6.10 Necessary measures may include, without being limited to, sufficiently long times of ventilation, removal of bait residues, screening measures or cleaning using the recommended detergents and/or methods.

6.11 The re-use of rooms that have been subjected to pest control activities shall be authorised in writing by the qualified person.

7 Technical safeguards and measures

7.1 Any equipment designed for the application of pesticides, such as spraying devices, spray guns and atomisers shall be used for their intended purpose and in accordance with the manufacturer's operating instructions only. Reference is made to the accident prevention regulation 'High-pressure liquid jets' (VBG 87/GUV 3.9)

7.2 The equipment used for the application of pesticides shall be tested for proper functioning and technical safety in intervals not exceeding one year. The result of the tests shall be properly recorded.

7.3 Any modifications to the equipment used for the application of pesticides shall be reserved to the manufacturer or those persons who have been authorised by the same.

7.4 If equipment used for pest control has been found to be defective, this equipment shall not be re-used unless it has been repaired and its safety has been verified in accordance with Section 7.2 hereof.

7.5 Pesticides shall be transported in such a way as to avoid any release thereof and any deleterious effect on the environment or human health. The same applies, *mutatis mutandis*, to the transport of equipment for the application of pesticides and other tools that are contaminated with pesticides. Reference is made to the 'Regulations for the transportation of dangerous goods on roads' (GGVS).

7.6 The spray and the bait shall be prepared in the open air, if possible. Otherwise, proper ventilation shall be ensured. The solutions to be used shall not be prepared in residential occupancies, in kitchens or storage rooms for food or feed. Only the quantity necessary for the intended pest control activity shall be prepared. Residual quantities shall be avoided.

7.7 No kitchen or eating utensils, watering, feeding or washing troughs may be used for the preparation of spray liquids, bait etc., but only vessels that have been labelled for this purpose.

7.8 The liquids prepared, the bait produced but not used etc., the unused commercial products and the tools used shall not be left unattended. If these pesticides or the tools used in connection with them have to be stored over night or for longer periods of time, they shall be kept under lock and seal or in a manner so as to ensure that only qualified persons may access them (also refer to Section 11).

7.9 Work shall be carried out in such a manner so as to avoid inhaling dust, spray clouds, vapours, smoke or gases as well as contact of the pesticides with the eyes or the skin. (Also refer to Section 9.6). Any splashes or contamination shall be immediately washed off with water and soap. Working clothes that have been soaked with pesticides shall be immediately changed.

7.10 The equipment used shall be cleaned when the work has been completed. The residues of the solutions prepared etc. or the rinsing fluids shall not be allowed to enter any bodies of water. Any waste arising shall be disposed of in compliance with the provisions governing the disposal of waste, in particular, with due regard to the Verordnung zur Bestimmung von Abfällen (Ordinance for the Definition of Wastes - AbfBestV) in accordance with Section 3 (4) of the Kreislaufwirtschafts- und

Abfallgesetz (Closed Substance Cycle and Waste Management Act - KrW-/AbfG) as well as TA Abfall (Technical Instructions on Waste), as waste requiring special monitoring activities (hazardous waste) using waste keys 53 103/4 and 187 14/15. Any minor quantities and contaminated packaging materials shall be collected separately and directly disposed of according to local hazardous waste collection schemes.

8 Hygiene protection measures

8.1 Workers handling pesticides shall refrain from eating, drinking or smoking in work areas or at their workplaces in the open air. Areas have to be provided for these workers in which they can eat, drink or smoke without suffering an impairment to their health based on hazardous substances.

8.2.1 Lavatories and showers as well as rooms with separate lockers for normal and working clothes shall be provided to workers handling pesticides. Where necessary to protect the health of workers, lockers shall be provided for normal and working clothes which are separated by lavatories and showers.

8.2.2 If the pesticide manufacturer has specified in the operating instructions that workers shall have a shower after handling the pesticide, showers shall be provided.

8.3 When workers have finished handling a pesticide, they shall change their clothes and at least wash their face and hands with water and soap.

8.4 Working clothes and protective garments that have been contaminated with pesticides shall be transported in tightly closed transport containers. If necessary, the clothes shall be aired in the open air after the transport.

8.5 Working clothes and protective garments shall be cleaned by the employer. If necessary, they shall be properly disposed of and replaced by the employer.

8.6 Workers shall not be under the influence of alcoholic drinks or drugs while handling pesticides.

9 Personal protective equipment

9.1 The employer shall provide efficient personal protective equipment that can be appropriately worn by the worker and shall keep such equipment in a useful, hygienically unobjectionable condition, and

9.2 The employer shall ensure that the workers' activities are limited to the time absolutely necessary to carry out the work to be done and compatible with health protection.

9.3 The workers shall use the personal protective equipment provided. Wearing respiratory protection and full protection suits shall not constitute a permanent measure.

9.4 The employer shall define the personal protective equipment to be used prior to commencement of the work.

9.5 Whether and which protective equipment is to be provided shall be judged subject to the pesticide to be used, the application method, the detergent and the type of pest to be controlled. This determination shall be made with due regard to the active substances and synergists as well as the possible auxiliary substances present. Auxiliary substances may include, without being limited to, wetting agents and solvents, emulgators, anti-corrosives and stabilisers.

9.6 Depending on the application method of the pesticides, the following protective equipment shall be worn at minimum

Application method	Respiratory protection / Eye protection ¹	Protective garments	Suitable underwear	Protective gloves	Suitable shoes (material, shape)
Pouring	-	+	-	+	+
Sprinkling	KB	+	-	+	-
Dusting	P/HM/KB	+	-	+	-
Coating*	F/HM	+	-	+	-
Spraying	FP/VM	+	+	+	+
High-pressure spraying	HM	+	+	+	+
Atomizing	FP/VM	+ Masking of transitions	+	+	+

KB = Face shield VM = Full mask
P = Particle filter F = Gas filter
HM = Half mask FP = Combined filter

+ required
- not necessary

* Immersion
Impregnation of
drilled holes

¹ Rules for the use of breathing apparatus, and list of certified breathing apparatus, order no. ZH 1/701, order no. ZH 1/606. To be obtained from Carl Heymanns Verlag KG, Luxemburger Strasse 449, 50939 Köln.

9.7 If there is a risk of other injuries or health hazards, appropriate additional personal protective equipment shall be worn, such as helmets, goggles, safety shoes, rubber apron.

10 Preventive medical check-ups

10.1 Workers applying pesticides that require wearing respirators

1. shall not be employed,
2. shall not be continued to be employed,

by the employer unless they have been submitted to a medical check-up by a qualified doctor within the time limits specified in UVV VBG 100/GUV 0.6 for the first and any subsequent medical check-up for persons wearing respirators.

11 Storage and warehousing

11.1 Pesticides shall be stored and warehoused in such a way as to avoid any deleterious effect on the environment or human health. Appropriate and reasonable precautions shall be taken in order to avoid abuse or misuse to the greatest possible extent.

11.2 Attention shall be paid to the relevant rules contained in TRGS 514 (for 50 kg or more) and TRG 280.

11.3 Pesticides shall not be kept or stored in containers which bear the risk of confusion with foodstuffs due to their shape or labelling. Pesticides shall be kept and stored in an orderly manner and not immediately next to drugs, foodstuffs or animal feed or any ingredients thereof.

11.4 Pesticides bearing the label 'T+' or 'T' shall be stored in a locked facility or in such a way that only persons with expertise in the use of such substances have access to them.

12 Employer advisories and instructions

12.1 The employer shall prepare advisories and instructions specific to the working area and substance in which the risks that may arise for humans and the environment when handling hazardous substances are described, the necessary protective measures and rules of conduct are defined, and the proper disposal of any hazardous waste arising is pointed out. The advisories and instructions shall be written in an easily understandable style and in the language of the workers and shall be posted in a suitable location within the establishment. The advisories and

instructions shall also include instructions concerning the behaviour in the event of danger and the first aid measures to be taken.

12.2 Workers who are assigned the task of handling hazardous substances shall be instructed concerning the possible hazards and the protective measures through the advisories and instructions. Workers capable of bearing children shall be additionally informed about the possible hazards and employment restrictions relating to expectant mothers. These instructions have to be provided prior to taking up employment and thereafter at least once per year verbally and specific to the respective workplace. The contents and time of the instructions shall be recorded in writing and confirmed by the persons receiving the instructions by signing the records. The evidence of the instruction shall be kept for two years.

12.3 The employer's advisories and instructions shall incorporate the instructions for use issued by the manufacturer with respect to the relevant pesticides.

12.4 The employer shall inform expectant or breastfeeding mothers and all other female workers employed by him as well as the works council or personnel representatives, if existing, concerning the results of the assessment of the working conditions and the measures to be taken to protect health and safety at the workplace as soon as this is viable. (Section 2 1st sentence of Mutterschutzrichtlinienverordnung - Ordinance on the protection of pregnant and nursing women at the workplace - MuSchRiV).

13 Restrictions of employment

Reference is made to the restrictions of employment specified in the Youth Employment Act and the Maternity Protection Guideline Regulation.

14 First aid

14.1 Adequate first aid equipment and medication shall be kept wherever pest control activities are carried out and shall be maintained in a serviceable condition.

14.2 The first aid equipment shall be checked annually for completeness and a serviceable condition, e.g. by first aiders. The inspection shall be properly recorded.

14.3 The first aiders who must be employed in accordance with UVV 'First Aid' (VBG 109/GUV 0.3) shall receive additional training and further training concerning First Aid, in particular, as regards the pesticides used, from a specialist in occupational medicine. Such training and further training measures shall be repeated in intervals not exceeding 2 years. The training measures performed shall be properly recorded.

14.4 In the vicinity of the work areas, running water and soap shall be available for washing and rinsing any contaminated body parts.

14.5 In the event of poisoning or skin damage, the workers concerned shall be immediately presented to a doctor.

15 Pest control activities in public facilities

15.1 Fourteen days prior to the realisation of pest control activities in public facilities, particularly schools, day-care centres, or hospitals, the competent authority shall be notified in writing of the scope, application, materials, methods and envisaged protective measures for such activities.

15.2 This notification shall be made by the specialist company carrying out the pest control activities. (for a form sheet, refer to Annex II)

15.3 For the purpose of Section 15.1, public facilities shall mean the following:

- Public and private schools serving general education and vocational training purposes
- School boarding houses, youth hostels, infant homes, children's homes, nurseries, day-care facilities, apprentice hostels, youth homes, holiday camps and similar institutions
- Hospitals, maternity homes, rehabilitation facilities, pensioners' homes, nursing homes, other establishments designed for residential purposes and mass accommodation
- other public facilities, such as canteens, swimming pools and museums.

16 Documentation

16.1 All pest control activities shall be comprehensively documented. Such documentation shall be archived for a minimum of five years and shall be submitted to the competent authority upon request.

16.2 The documentation shall be prepared by the qualified person on the basis of Annex II.

Annex I to TRGS 523

Recognition criteria

1 Application domains

The recognition of expert knowledge in accordance with Sections 4.3.2 and 4.4 of the present TRGS can be granted for the following application domains of pest control in accordance with the current state of the art:

- Protection of health and stored products as well as special material protection
- Plant protection
- Preservation and protection of wood and buildings

2 Evidence

2.1 The following evidence shall be submitted by those who want to apply to the relevant authority for recognition of their expert knowledge in accordance with Section 4.3.2 of the present TRGS:

- a) Basic theoretical knowledge in accordance with Section 3 of the present Annex
- b) Special theoretical knowledge in accordance with Section 4 of the present Annex concerning at least one application domain
- c) On-the-job experience in accordance with Section 5 of the present Annex

2.2 The evidence in accordance with Section 2.1 letters a and b may be provided by submitting

- a) Certificates evidencing an examination or training course that has been recognised as being equivalent in accordance with Section 4.3.2 1st sentence of the present TRGS
- b) Certificates evidencing an examination or completed course of education that has been recognised as being equivalent for a specific application domain in accordance with Section 4.3.2 2nd sentence of the present TRGS.

2.3 Evidence of expert knowledge can also be recognised as having been provided if the applicant can prove that the corresponding expert knowledge in accordance with Section 2.1 of the present Annex was taught and verified as part of a completed course of education, and can provide the corresponding certificates.

3 Basic theoretical knowledge

3.1 Basic theoretical knowledge is necessary for the following areas:

- Basic sciences
(technical mathematics, physics, chemistry, biology, toxicology)
- Occupational Safety and Health including accident prevention
- Protection of health, animals and the environment including hazardous substances legislation
- Knowledge of technical equipment

3.2 Time required

Within the scope of the training course, the following training units comprising 45 minutes each shall be deemed sufficient with respect to the training domains specified in Section 3.1 hereof:

1. Technical mathematics 24 training units	(referred to the example of health and safety at work and properties of the hazardous substances used as pesticides)
General basics of physics 12 training units	
3. General basics of chemistry 12 training units	
4. General basics of biology 32 training units	
5. General basics of toxicology 12 training units	
6. Health and safety at work - organisation and basic principles – 6 training units	
7. Basics of equipment technology 10 training units	
8. Protection of health, animals and the environment including hazardous substances legislation 40 training units	

4 Special knowledge

4.1 Special theoretical knowledge is required as follows with respect to the relevant domain in accordance with Section 1.2 - 1.7:

- Knowledge concerning the type, nature or construction of the material to be protected

- Pests occurring in the partial area including diagnosis of infestation, differentiation according to stages of development, if necessary
- Special pesticides for this application domain, their active substances, formulations, method of action, effects, as well as possible test or quality marks of the preparations
- Suitability and capacity of different methods of extermination
- Criteria for pest extermination in accordance with animal protection legislation
- Toxicity and behaviour of the active substance in organisms other than the target organism
- Chemical behaviour of the pesticides in the environment (degradation, distribution and accumulation behaviour)
- Transport, storage, determination of residues, cleaning and disposal of the preparations
- Behaviour in the event of poisoning
- Preventive measures, safeguards for the protection of users, affected persons and the environment
- Equipment technology including operation and maintenance, production of ready-to-use preparations, methods of application
- Working guidelines for determining infestation, the preparation, performance, efficiency control of pest control activities, and subsequent treatment

Reference is also made to DIN 68800 with respect to Section 1.3

4.2 Time required

The following times are considered adequate training periods:

- Protection of health and stored products as well as special material protection
90 training units
- Plant protection
44 training units
- Preservation and protection of wood and buildings
60 training units

5 Practical experience on the job

5.1 An applicant shall be deemed to have sufficient practical experience:

- a) for a full proof of expert knowledge
 - if he has successfully passed the final examinations in a recognised apprenticeship trade and has then worked for at least two years in that trade, or

- if he has worked for at least four years on the job
- b) for a proof of expert knowledge limited to one domain:
at least 30% of the times specified in subs. a) hereof.
- c) if the proof of expert knowledge is limited to certain pests and restricted to certain pesticides and a single domain, no less than 3 months of practical experience on the job shall be deemed sufficient.

The recognition will in this case cease to be valid upon termination of the activity.

5.2 Practical experience on the job must have been obtained in relevant establishments performing adequate practical activities that are commensurate with the intended domains. The term practical experience on the job presupposes full-time employment. The required times will be extended accordingly for part-time workers.

Annex II to TRGS 523

Notification of the intended application of pesticides in public facilities

To the competent
local supervisory authority

From
Name _____

Address _____

cc. District Administration Authority
cc. Occupational safety and health office

Tel. / FAX

We hereby inform you in accordance with Article 25 of the Hazardous Substances Ordinance in connection with Annex V No. 6.4.2 thereto that we were ordered to perform pest control activities in the public facility designated below

1. Address of the public facility:

2. Client (if different from no. 1):

3. Affected building (sections), rooms or areas:

4. Envisaged date or period of time:

5. Target organisms:

6. Anticipated agent:

Trade name	Active substance(s)	Concentration applied	Classification under GefStoffV
1.			
2.			
3.			

please turn over

7. Application method:

8. Special protective measures (e.g. removal of food, posting of signs, if necessary, etc.):

9. Anticipated cleaning method (including detergent):

The staff and safety requirements specified in TRGS 523 are complied with.

Director of operations