



Appendix 1: Risk and Safety phrases

Below is a list of EC risk phrases (R) and safety recommendations (S). Suppliers are responsible for a listing of appropriate phrases and recommendations on container labels.

Risk (R) phrases

- R1 Explosive when dry
- R2 Risk of explosion by shock, friction, fire or other sources of ignition
- R3 Extreme risk of explosion by shock, friction, fire or other sources of ignition
- R4 Forms very sensitive explosive metallic compounds
- R5 Heating may cause an explosion
- R6 Explosive with or without contact with air
- R7 May cause fire
- R8 Contact with combustible material may cause fire
- R9 Explosive when mixed with combustible material
- R10 Flammable
- R11 Highly flammable
- R12 Extremely flammable
- R13 Extremely flammable liquefied gas
- R14 Reacts violently with water
- R15 Contact with water liberates highly flammable gases
- R16 Explosive when mixed with oxidizing substances
- R17 Spontaneously flammable in air
- R18 In use, may form flammable/explosive vapour-air mixture
- R19 May form explosive peroxides
- R20 Harmful by inhalation
- R21 Harmful in contact with skin
- R22 Harmful if swallowed
- R23 Toxic by inhalation
- R24 Toxic in contact with skin
- R25 Toxic if swallowed
- R26 Very toxic by inhalation
- R27 Very toxic in contact with skin
- R28 Very toxic if swallowed
- R29 Contact with water liberates toxic gas
- R30 Can become highly flammable in use
- R31 Contact with acids liberates toxic gases
- R32 Contact with acids liberates very toxic gas
- R33 Danger of cumulative effects
- R34 Causes burns
- R35 Causes severe burns
- R36 Irritating to eyes
- R37 Irritating to respiratory system
- R38 Irritating to skin
- R39 Danger of very serious irreversible effects
- R40 Possible risks of irreversible effects
- R41 Risk of serious damage to eyes
- R42 May cause sensitization by inhalation
- R43 May cause sensitization by skin contact
- R44 Risk of explosion if heated under confinement
- R45 May cause cancer
- R46 May cause heritable genetic damage
- R47 May cause birth defects
- R48 Danger of serious damage to health by prolonged exposure
- R49 May cause cancer by inhalation
- R50 Very toxic to aquatic organisms
- R51 Toxic to aquatic organisms
- R52 Harmful to aquatic organisms
- R53 May cause long-term adverse effects in the aquatic environment

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- R54 Toxic to flora
- R55 Toxic to fauna
- R56 Toxic to soil organisms
- R57 Toxic to bees
- R58 May cause long-term adverse effects in the environment
- R59 Dangerous for the ozone layer

Safety (S) recommendations

- S1 Keep locked up
- S2 Keep out of reach of children
- S3 Keep in a cool place
- S4 Keep away from living quarters
- S5 Keep contents under ... (appropriate liquid to be specified by the manufacturer)
- S5A Keep contents under oil
- S5B Keep contents under liquids which are oxygen-free
- S6 Keep under ... (inert gas to be specified by the manufacturer)
- S6A Keep under nitrogen
- S7 Keep container tightly closed
- S8 Keep container dry
- S9 Keep container in a well-ventilated place
- S12 Do not keep the container sealed
- S13 Keep away from food, drink and animal feedingstuffs
- S14 Keep away from ... (incompatible materials by the manufacturer)
- S14A Keep away from acids, reducing agents and polymerisation catalysts
- S14B Keep away from organic material and metal powders
- S14C Keep away from water, acids and alkali
- S15 Keep away from heat
- S16 Keep away from sources of ignition - No smoking
- S17 Keep away from combustible material
- S18 Handle and open container with care
- S20 When using do not eat or drink
- S21 When using do not smoke
- S22 Do not breathe dust
- S23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer)
- S24 Avoid contact with skin
- S25 Avoid contact with eyes
- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
- S27 Take off immediately all contaminated clothing
- S28 After contact with skin, wash immediately with plenty of ... (to be specified by the manufacturer)
- S28A After contact with skin, wash immediately with plenty of water
- S28B After contact with skin, wash immediately with plenty of water and soap
- S28C After contact with skin, wash immediately with a sodium borate solution
- S29 Do not empty into drains
- S30 Never add water to this product
- S33 Take precautionary measures against static discharges
- S34 Avoid shock and friction
- S35 This material and its container must be disposed of safely
- S36 Wear suitable protective clothing
- S37 Wear suitable gloves
- S38 In case of insufficient ventilation, wear suitable respiratory equipment
- S39 Wear eye/face protection
- S40 To clean the floor and all objects contaminated by this material use... (to be specified by the manufacturer)
- S41 In case of fire and/or explosion do not breathe fumes

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- S42 During fumigation/spraying wear suitable respiratory equipment (appropriate wording to be specified by the manufacturer)
- S43 In case of fire use ... (indicate in the space the precise type of fire-fighting equipment. If water increases the risks add: Never use water)
- S43A In case of fire, dry chemical (never use water)
- S43B In case of fire, use fire-fighting equipment on the basis of sodium chloride, sodium bicarbonate (never use water)
- S43C In case of fire, use limestone powder, sodium chloride or dry sand (never use water)
- S43D In case of fire, use sodium carbonate or dry sand (never use water)
- S43E In case of fire, use dry sand (never use water)
- S44 If you feel unwell seek medical advice (show the label where possible)
- S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
- S46 If swallowed, seek medical advice immediately and show this container or label
- S47 Keep at temperature not exceeding... °C (to be specified by the manufacturer)
- S47A Keep at temperature not exceeding 65°C
- S48 Keep wetted with ... (appropriate material to be specified by the manufacturer)
- S49 Keep only in the original container
- S50 Do not mix with... (to be specified by the manufacturer)
- S51 Use only in well-ventilated areas
- S52 Not recommended for interior use on large surface areas
- S53 Avoid exposure - obtain special instructions before use
- S54 Obtain the consent of pollution control authorities before discharging to waste-water treatment plants
- S55 Treat using the best available techniques before discharge into drains or the aquatic environment
- S56 Do not discharge into drains or the environment, dispose to an authorised waste collection point
- S57 Use appropriate containment to avoid environmental contamination
- S58 To be disposed of as hazardous waste
- S59 Refer to manufacturer/supplier for information on recover/recycling
- S60 This material and/or its container must be disposed of as hazardous waste

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Appendix 2: L & B regulations (example)

The following regulations are taken from the book "Laboratory Safety" (*Veiligheid in het laboratorium*) (Kramers-Pals, 1984); they are intended only to provide an impression of the issues that that can come up for discussion in a laboratory.

Laboratory (L) and Behaviour (B) regulations:

- L1 The responsibility for supervising day-to-day activities in the laboratories is assigned to the lab instructors by the Director.
- L2 Students are allowed to carry out activities only:
as part of class activities supervised by the responsible instructor (according to the lesson schedule);
outside class only under the direct supervision of an instructor;
outside class while working on a thesis project, but only under the conditions as stated in point 3.
- L3 With written permission from an instructor, a student may carry out laboratory activities without direct supervision if:
the instructor believes, in view of the nature of the activities and the skills of the student, that the risk entailed by the student working alone is not significantly greater than when these activities would take place in a class situation;
the student is not working alone in the laboratory.
- L4 A student who works without supervision in a laboratory without acquiring permission to do so (as described in regulation 3) is in violation of the rules. He or she is held personally responsible for any damage caused and is also subject to disciplinary measures.
- L5 Group labs or practicals have priority above individual activities.
- L6 If any substances are to be stored temporarily, this must take place in consultation with the instructor.
- L7 Any damage or defects ascertained while working must be reported immediately. In cases of negligence, the student can be held personally liable for the damage.
- L8 Any student working in a laboratory is expected to be aware of the behavioural regulations that apply to that laboratory. He or she must behave in accordance with these regulations. The behavioural regulations and the laboratory regulations are posted in every laboratory at the University. The instructor is not responsible for the student who, against his or her better judgement and in spite of the supervision that is provided, disobeys the laboratory or behavioural regulations.
- L9 The Director has the authority to decide about all cases that are not foreseen in the regulations.

- B1 Students must be present on time at the laboratory. They are required to wear safety glasses and a lab coat. Long hair must be tied back due to the risk of contamination or fire.

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- B2 Students are only allowed to conduct experiments that are assigned by the instructor. Before conducting an experiment, they must be informed about the properties of the chemicals being used and they must record any important properties in their journals.
- B3 Eating, drinking and smoking are strictly forbidden in the laboratory.
- B4 Students must wash their hands before leaving the laboratory.
- B5 All students are required to know about the location and operation of fire extinguishers, extinguisher blankets, eye baths, emergency showers and escape routes.
- B6 Before using any apparatus, students are required to understand its operation and possible dangers. Students must be confident that the setup with which they are working is safe and that there is no danger to the surroundings. If in doubt, students must consult the instructor.
- B7 If the laboratory activities cannot be interrupted during breaks, students must inform the instructor about this in a timely fashion.
- B8 Tidiness and peace and quiet are essential to working safely in the laboratory.
- B9 Environmentally hazardous chemical waste may not be poured down the drain or thrown into the waste bin. Always follow the laboratory waste disposal procedures.
- B10 Students are expected to know these regulations as well as the laboratory regulations.
- B11 The Director has the authority to decide about all cases that are not foreseen in these regulations.

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Appendix 3: List of carcinogenic substances according to SZW

Various lists of this type are in circulation. The present list includes carcinogenic substances as defined by the Ministry for Social Affairs and Employment (SZW). The Carcinogenic Substances and Processes Decree applies to this list. It is taken from a publication (Publicatieblad nr.187) of the Occupational Conditions Inspectorate ("Working with carcinogenic substances and processes" 1994). The Carcinogenic Substances Decree applies to this list. Among other things, this means that any use of substances on this list must be registered. Information about both the material and the user must be registered. Moreover, there must be an explanation about why the use of the material is essential.

Any activities involving these substances must take place with extreme caution.

A		
Acrylamide	benzotrichloride	chlornaphazine
Acrylnitril	beryllium and beryllium compounds	4-chlor-o-phenylenediamine
Aflatoxins	Beryllium	certain chrome (VI) compounds
AFB1	Beryllium	calcium
AFB2	compounds (except	chromate
AFG1	beryllium aluminium	chrome III
AFG2	silicate)	chromate
4-aminoazobenzene	bis(chloro)methylethe	chrome trioxide
o-aminoazotoluene	r	strontium
4-aminobiphenyl (+ salts)	bleomycin	chromate
4-amino-3-fluorphenol	1,3-butadiene	zinc chromates
o-anisidine	busulfan	(including zinc-
aromatic extracts of crude oil distillates	2-(p-tert-butylphenoxy)-	potassium chromate)
arsenic and certain arsenic compounds	isopropyl-2-	cisplatin
arsenic trioxide	chloroethylsulphite	citrus red no.2
arsenic acid (+ salts)	β-butyrolactone	p-cresidine
arsenic pentoxide	C	cycasin
	certain cadmium compounds	cyclophosphamide
asbestos	cadmium	D
auramine	chloride	dacarbazine
azaserine	cadmium oxide	daunorubicin
azathioprine	cadmium	N,N'-diacetylbenzidine
aziridine	sulphate	2,4-diamino-anisol-sulphate
B		4,4'diaminodiphenylether
benzene	calcium chromate	2,4-diaminotoluene
benzidine (+ salts)	captafol	o-dianisidine (+ salts)
benzo(a)anthracene	carbadox	diazomethane
benzo(a)pyrene	carmustine	
benzo(b)fluoranthene	chlorambucil	
benzo(j)fluoranthene	chlormethine N-oxide	dibenz(a,h)acridine
benzo(k)fluoranthene	chlormethyl-methylether	dibenzo(a,h)anthracene

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dibenz(a,h)pyrene
 dibenz(a,i)pyrene
 7H-dibenzo(c,g)carbazole

1,2 dibrom-3-chloropropane
 1,2 dibrommethane
 3,3'-dichlorbenzidine (+ salts)
 3,3'-dichlor-4,4'diamino
 diphenyl ether
 1,4-dichlorobut-2-ene
 1,2-dichlorethane
 1,3 dichlor-2-propanol
 diesel motor emissions
 diethylsulphate
 diglycidyl resorcinol ether

p-dimethylamino-azobenzene
 dimethylcarbamoyl chloride
 1,1-dimethylhydrazine
 1,2-dimethylhydrazine
 dimethyl sulphate
 dimethylsulphamoyl chloride

1,6-dinitropyrene
 1,8-dinitropyrene

direct black 38
 direct blue 6
 direct brown 95
 disperse blue
 doxorubicine

E
 epichlorhydrine
 erionite
 ethylene oxide
 ethyl methanesulphonate

F
 2-(2-formylhydrazino)-4-(5-nitro-2-furyl)thiazole
 furazolidone

H
 hexachlorbenzene
 hexamethyl phosphoric triamide
 hydrazine (+ salts)
 hydrazobenzene
 hydrazine bis (3-carboxy-4-hydrocarbons, C26-55, rich in aromatics
 hydroxybenzenesulphonate)

I
 indeno[1,2,3-cd]pyrene

K

L
 lomustine

M
 melfalan
 merphalan
 2-methylaziridine
 methylazoxymethanol
 methylazoxymethylacetate
 5-methylchrysene
 4,4'-methylene bis(2-chloraniline) + salts
 4,4'-methylene bis(2-methyl-aniline)
 4,4-methylenedianiline
 methylmethanesulphonate
 2-methyl-1-nitroanthraquinone
 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone
 1-methyl-3-nitroanthraquinone
 methylthiouracil
 metronidazole
 mitomycine C
 mustine

N
 2-naphtylamine (+ zouten)

certain nickel compounds

(di)nickel trioxide
 nickel dioxide
 nickel monoxide
 nickel subsulphide
 nickel sulphide

niridazol
 5-nitroacenaphthene
 4-nitrobiphenyl
 6-nitrochrysene
 nitrofen
 2-nitrofluorene
 N-(4-(5-nitro-2-furyl)-2-thiazolyl)acetamide
 2-nitronaphthalene
 2-nitropropane
 4-nitropyrene

certain N-nitrosamines

N-4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone
 N-nitrosodiethanolamine
 N-nitrosodiethylamine
 N-nitrosodiisopropylamine
 N-nitrosodimethylamine
 N-nitrosodi-n-butylamine
 N-nitrosoethylurea
 N-nitrosomethylethylamine
 N-nitrosomethylurea
 N-nitrosomethylvinylamine
 N-nitrosomorpholine
 N-nitrosornicotine
 N-nitrosopiperidine
 N-nitrosopyrrolidine
 N-nitrososarcosine

P

parfuran
 phenazopyridine hydrochloride
polycyclic aromatic hydrocarbons
 aromatic extracts of crude oil distillates
 benzo(a)anthracene
 benzo(a)pyrene
 benzo(b)fluoranthene
 benzo(j)fluoranthene

S

benzo(k)fluoranthene
dibenz(a,h)acridine
benzo(a,h)anthracene
benzo(a,h)pyrene
7H-dibenzo(c,g)carbazole
diesel motor emissions
indeno[1,2,3-*cd*]pyrene
5-methylchrysene

potassium bromate
procarbazine hydrochloride
3-propanolide
1,3-propane sultone
propyleneoxide
ptaquiloside

S

safrol
semustine
silica (crystalline)
sterigmatocystin
streptozocin
strontium chromate
styrene oxide
sulfallate

T

tetrachlordibenzo-p-dioxine
thioacetamide
thiotepa
o-tolidine (+ salts)
o-toluidine
treosulfan

tris (2,3-dibromopropyl)phosphate

U

uramustine
urethan

V

Vinylbromide
vinylchloride

Z

zinc chromates

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Appendix 4: List of suspected carcinogenic substances

In addition to the list of carcinogenic substances that is accepted by the Dutch government (Appendix 3), the Information Centre for the Netherlands Cancer Society publishes another list with 'suspected' carcinogenic substances (Appendix 4). Based on the limited information that is available, these substances are suspected of having carcinogenic properties. For more information you can call the free information line: 06-0226622)

Pesticides	Metals and metallic compounds	Other substances
Alachlor	Antimony trioxide	Acetamide
Amitrol	Cadmium sulphide	Benzal chloride
Captan	Lead acetate	Chloroform
Chlordane	Lead chromate	Dichloromethane
Chlordecone	Nickel	1,4-dioxane
Chlordemiform	Nickel carbonate	Formaldehyde
Heptachlor	Nickel hydroxide	Methyl iodide
Hexachlorcyclohexane	Nickel sulphate	Methylchloride
Simazine	Nickel tetracarbonyl	Tetrachlorethylene
		Tetracarbon
		Thiourea
		Trichlorethylene
		2,4,6-trichlorophenol

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Appendix 5: List of suspected reprotoxic substances

Reprotoxic substances have a negative influence on future generations. These can be either teratogenic or mutagenic substances. Teratogens can harm the unborn child. Mutagens can also affect the fertility of sperm and egg cells.

The 'chemiewinkel' of the University of Amsterdam conducted a literature study into the reprotoxic properties of substances. The following is a list of substances for which there are scientific indications that they have reprotoxic properties for women and/or men. For the purposes of illustration, it is also shown whether or not a MAC value has been assigned to the substance. Not all substances used in the Netherlands have been sufficiently studied. Future research will show whether a MAC value is required for the various substances. This list can be used as an aid for judging if extra protective measures are necessary. In this regard it is important to work with good facilities such as a fume cabinet etc, especially if volatile substances are involved.

Substances with * have been shown to be reprotoxic.

	fema le	male	MAC
A			
actelic	x		
aldrin	x		x
alkyl mercury	x		x
aluminium chloride	x		x
anesthesia gasses	x		
aniline	x		x
antracol	x	x	
atrazine	x	x	
B			
benzene	x	x	x
benzopyrene	x	x	
beryllium	x		
bisphenol A	x		
boric acid	x		
boron	x		
bromide	x		
butylacrylate	x		x
C			
cadmium*	x	x	x
caprolactam	x		x
captan	x		x
carbaryl	x		x
carbon dioxide		x	x
carbon disulphide*	x	x	x
carbon monoxide	x	x	x
carbon tetrachloride	x	x	x
chlordecone	x	x	
chlordifluormethane	x		x

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	fema le	male	MAC
chlorinated cyclic pesticides	x		
chloroform	x		x
chloroprene	x	x	x
chrome compounds	x	x	x
copper	x	x	x
cyclohexanol		x	x
D			
2,4-D	x		x
DDT	x	x	x
DDVP		x	
demeton	x		x
dibromochloropropane	x	x	
dichloromethane	x		x
dieldrin	x		x
diphenylhydrazine	x		
difolatan	x		
diquat	x		
dimethylacetamide		x	
dimethylaminopropionitril	x	x	
dimethylbenzanthracene	x		
dimethylformamide	x		x
dyes	x	x	
E			
endrin	x		x
epichlorhydrine	x	x	x
epoxy resins	x	x	
2-ethoxyethanol	x		x
ethoxyethylacetate	x		x
ethylbenzene	x		x
ethylenechlorhydrine	x		x
ethylene dibromide	x	x	x
ethylene dichloride	x	x	x
ethylene glycol	x	x	x
ethylene oxide	x	x	x
ethylenethiourea	x		
F			
fenthion	x		x
fluorhydrocarbons	x	x	
folpet	x		
formaldehyde	x		x
formamide	x	x	x
ftalate esters	x	x	
fundarol	x		
G			

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	fema le	male	MAC
gallium	x		
glycidylethers		x	
H			
hexachlorobiphenyl	x		
hexachlorcyclohexane		x	
hexachlorophene	x		
I			
inorganic arsenic	x	x	x
inorganic mercury	x	x	x
inorganic lead*	x		x
K			
kelthane	x		
L			
lindane		x	x
lithium	x		
lead (see inorganic/organic lead)			
M			
malathion	x	x	x
maneb		x	
manganese		x	x
MCPA	x		
metallic mercury	x		x
methacrylate esters	x		
2-methoxyethanol	x	x	x
2- methoxyethylacetate	x		x
bis(2-methoxyethyl) ether		x	
2-methoxypropanol-1	x		
2- methoxypropylacetate-1	x		
methylazoxymethanol	x		
methylethylketone	x		x
methyl mercury	x		x
methylstyrene	x		x
metiram	x		
mirex	x	x	
molybdenum	x	x	x
monomethylformamide	x		
N			
naled	x		
nickel	x	x	x
nitrofen		x	
nitrogen dioxide	x		x

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	fema le	male	MAC
nitrogen oxide	x		x
nitropropane	x		x
nitrosamines	x		
O			
organic lead	x	x	x
oryzalin		x	
ozone	x		x
P			
paraquat	x		x
p-tert. butylbenzoic acid		x	
parathion	x		x
pentachlorobenzene	x		
pentachlorophenol	x		x
perchlorethylene	x		x
phenol	x		x
photochemicals	x		
polybromobiphenyls	x	x	
polychlorobiphenyls	x	x	
propylene oxide	x		x
R			
ramrod	x		
S			
selenium		x	x
simazine		x	
solvents	x	x	
styrene	x		x
styrene oxide	x	x	
T			
2,4,5-T	x	x	x
tellurium	x		x
tetrachloroethane	x		x
tetrachlorophenol	x		
thallium	x		x
thiram	x	x	
titanium	x	x	
toluene	x		x
toluene diisocyanate		x	x
toluidine	x		x
trichloroethane	x		x
trichlorethylene	x	x	x
trichlorfon	x		
U			
urethan		x	
V			
vinylchloride	x	x	x
vinylidene chloride	x		
X			

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	fema le	male	MAC
xylylene	x		x
Z			
zineb	x		

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Appendix 6: List of hazardous substances according to the BAGA

The list of hazardous substances according to the BAGA includes concentration limits of substances that are considered to be environmentally hazardous. If these limits are exceeded, the material is defined as hazardous waste. The list describes various risk classes. These classes are based on the properties of the substances, or groups of substances, partly in relationship to the concentrations in which they appear in nature.

When using the BAGA list to decide whether a specific material is hazardous or not, you should take the following seven points into consideration:

1. If a component of the waste appears in one of the five risk classes (A,B,C,D or E) and the concentration of the component is higher than the limit for the relevant risk class, the material is then classified as hazardous waste (for a summary of risk classes, see below).
2. If a chemical compound of a hazardous element is present in the waste, the concentration limit does not apply to the compound, but only to the hazardous element itself.
3. Waste may not be diluted, mixed, treated or evaporated in order to bring the concentration below the limit.
4. If multiple hazardous components from the same class are present in the waste, the concentrations are added together.
5. If multiple hazardous components from different classes are present in the waste, the lowest concentration limit then applies.
6. For substances in water solution, the concentration limit for dry matter (DM) must be used. If the DM content is less than 0.1% by weight, the concentration limit, reduced by a factor of one thousand, applies to the solution.
7. Organic compounds, as used in this context, do not include: completely polymerised organic compounds or organic compounds in the cell material of organisms or the decomposition products thereof.

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Class A (limit: 50 mg/kg)

- A1 Antimony and antimony compounds
- A2 Arsenic and arsenic compounds
- A3 Beryllium and beryllium compounds
- A4 Cadmium and cadmium compounds
- A5 Chrome(VI) compounds
- A6 Mercury and mercury compounds
- A7 Selenium and selenium compounds
- A8 Tellurium and tellurium compounds
- A9 Thallium and thallium compounds
- A10 Inorganic cyanide compounds (cyanides)
- A11 Metal carbonyls
- A12 Naphthalene
- A13 Anthracene
- A14 Phenanthrene
- A15 Chrysene, benzo(a)anthracene, fluoranthene, benzo(a)pyrene, benzo(k)fluoranthene, indeno(1,2,3 cd)pyrene and benzo(ghi)perylene
- A16 Halogenated compounds of aromatic rings, such as polychlorobiphenyls, polychloroterphenyls and their derivatives
- A17 Halogenated aromatic compounds
- A18 Benzene
- A19 Dieldrin, aldrin and endrin
- A20 Organotin compounds

Class B (limit: 5,000 mg/kg)

- B1 Chrome(III) compounds
- B2 Cobalt compounds
- B3 Copper compounds
- B4 Lead and lead compounds
- B5 Molybdenum compounds
- B6 Nickel compounds
- B7 Tin compounds
- B8 Vanadium compounds
- B9 Wolfram compounds
- B10 Silver compounds

- B11 Organic halogen compounds
- B12 Organic phosphate compounds
- B13 Organic peroxides
- B14 Organic nitro and nitroso compounds
- B15 Organic azo and azoxy compounds
- B16 Nitrils
- B17 Amines
- B18 (iso and thio)cyanates
- B19 Phenol and phenolic compounds
- B20 Mercaptans
- B21 Asbestos
- B22 Halogenated silanes
- B23 Hydrazines
- B24 Fluorine
- B25 Chlorine
- B26 Bromine
- B27 White and red phosphorus
- B28 Iron silicate and alloys
- B29 Manganese silicate
- B30 Halogen containing compounds that produce acidic vapours upon contact with humid air or water, such as silicon tetrachloride, aluminium chloride, titanium tetrachloride

Class C (limit: 20,000 mg/kg)

- C1 Ammonia and ammonium compounds
- C2 Inorganic peroxides
- C3 Barium compounds except barium sulphate
- C4 Fluorine compounds
- C5 Phosphate compounds except the phosphates of aluminium, calcium and iron
- C6 Bromates, (hypo-)bromites
- C7 Chlorates, (hypo-)chlorites
- C8 Aromatic compounds
- C9 Organic silicone compounds
- C10 Organic sulphur compounds
- C11 Iodates
- C12 Nitrates, nitrites
- C13 Sulphides
- C14 Zinc compounds

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- C15 Salts of peracids
- C16 Acid halogenides, acid amides
- C17 Acid hydrides

Class D (limit: 50,000 mg/kg)

- D1 Sulphur
- D2 Inorganic acids
- D3 Metal hydrogen sulphates
- D4 Oxides and hydroxides
except those of:
Hydrogen, carbon,
silicon, iron, aluminium,
titanium, manganese,
magnesium, calcium
- D5 Aliphatic and naphthenic hydrocarbons
- D6 Organic oxygen compounds
- D7 Organic nitrogen compounds
- D8 Nitrides
- D9 Hydrides

**Class E (no concentration limit=>
it is therefore classified as
hazardous waste at all
concentrations)**

- E1 Flammable substances
- E2 Substances which produce hazardous quantities of flammable gases upon contact with humid air or water



Appendix 7: Hazardous combinations of substances

This list of hazardous combinations of substances is taken from the BAGA booklet.

The list is not complete. You can find more information in the chemical safety card book; for each material listed, there is a summary of a number of combinations that can lead to undesired reactions. Regarding such undesired combinations, you should take account of storage, use and disposal.

- For example, unexpected reactions between substances can be the result of careless storage. Problems may occur if reactive substances are not stored separately and are able to come into contact with each other due to leakage.
Store the various types of chemicals in separate compartments so they cannot react unexpectedly with each other (acid/ base, oxidising/ reducing).
- Unexpected reactions can also occur if mutually reactive substances come into contact with each other in the same waste container.

SUBSTANCE	AVOID THE FOLLOWING CONDITIONS AND/OR CONTACT WITH
acetaldehyde	temperatures above 400 °C (thermal explosion)
acetone	mixtures with HNO ₃ and H ₂ SO ₄ , H ₂ O ₂
acetylene	Cl ₂ , Br ₂ , Cu, F ₂ , Hg, Ag
activated carbon	CaCl ₂ , all oxidants
alkali metals	CCl ₄ and other halogenated hydrocarbons, CO ₂ , H ₂ O, halogens, CO, O ₂
alkaline solutions	zinc (do not store in galvanised containers, otherwise H ₂ will be generated, do not allow to come into contact with zinc-plated material such as spatulas)
aluminium powder	see alkali metals
AlKI4	freshly made charcoal
ammonia	concentrated acids, powdered metals, flammable liquids, chlorates, nitrites, sulphur, finely divided organic substances or flammable substances, calciumhypochlorite, halogens, carbon dioxide and mercury (e.g. in manometers)
ammonium dichromate	reducing substances
ammonium nitrate	acids, powdered metals, flammable liquids, chlorates, nitrites, sulphur, finely divided organic substances or flammable substances
ammonium nitrite	temperatures above 70 °C (explosion hazard)
ammonium persulphate	finely divided metals
aniline	HNO ₃ , H ₂ O ₂
acetic acid	chromic acid, HNO ₃ , OH-compounds,

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SUBSTANCE	AVOID THE FOLLOWING CONDITIONS AND/OR CONTACT WITH
	ethylene glycol, perchloric acid, peroxides, permanganates
acetic anhydride	see acetic acid
batteries (dry cell)	household steel wool (spontaneous combustion)
barium chlorate	reducing substances
barium nitrate	reducing substances
barium perchlorate	mixtures with ammonium compounds, reacts with H ₂ SO ₄ while generating explosive perchloric acid, benzene, sulphuric acid, manganese ions
benzoyl peroxide	impact and heat (explosion), flammable liquids, ammonium nitrate, chromic acid, hydrogen peroxide, nitric acid, sodium peroxide, halogens
calcium carbide	water (generates acetylene; see acetylene)
calcium chlorate	reducing substances and strong acids
calcium nitrite	acids
calcium oxide	water
carbohydrates	solid oxidising agents (e.g. powdered sugar)
carbon (activated)	see activated carbon
charcoal	oxidising substances (spontaneous combustion hazard, sometimes fire or explosion hazard)
chlorine dioxide	ammonia, methane, phosphine, hydrogen sulphide, ammonium salts, acids, powdered metals, sulphur, finely divided organic and flammable substances
chlorates	ammonium salts, acids, powdered metals, sulphur, finely divided organic and flammable substances
chloride	ammonium salts, inorganic acids, flammable substances (powdered sulphur and metals)
chromic acid	acetic acid, naphthalene, camphor, glycerol, turpentine, alcohol and flammable liquids in general
chromic anhydride	see chromic acid
copper	acetylene, hydrogen peroxide
cyanide carbonate	acetylene
dibromine	NH ₄ OH, acetylene, butadiene, butane, methane, propane, dihydrogen, sodium carbide, turpentine, benzene and finely divided metals
dichlorine	see dibromine
difluorine	all other substances
diiodine	acetylene, ammonia, dihydrogen
dihydrogen sulphide	fuming nitric acid, oxidising gases,

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SUBSTANCE	AVOID THE FOLLOWING CONDITIONS AND/OR CONTACT WITH
ethanol	chlorates, perchlorates, permanganates manganese ions, oxidising acids, strong oxidants
ether	strong oxidants (peroxide formation)
hydrazine	hydrogen peroxide, HNO ₃ and other strong oxidants
hydrocarbons	F ₂ , Cl ₂ , Br ₂ , chromic acid and sodium peroxide
hydrogen cyanide	nitric acid, alkalis
hydrogen fluoride	ammonia
hydrogen peroxide	copper, Cr, Fe, most metals and their salts, flammable liquids and solids, aniline, nitromethane, alcohols, acetone, MnO ₂
iron (powder)+sulphur	organic substances
iron sulphide	organic substances
lithium (powder)	water, oxidising substances, acids and many compounds
lithium	see lithium
aluminiumhydride	
magnesium (powder)	see alkali metals
magnesium carbonate	benzaldehyde, ethylene glycol, glycerine, sulphuric acid
magnesium nitrate	reducing substances and dimethylformamide
manganese dioxide	reducing substances, H ₂ O ₂
mercury	acetylene and ammonia
nitrates of metals	S, C, organic substances
nitric acid (strong)	acetic acid, aniline, chromic acid, hydrogen cyanide, H ₂ S, flammable liquids and flammable gases
nitrites	acids
nitrobenzene	heat (thermal explosion)
nitrogen-holding dyes (powdered)	air (explosion)
oxalic acid	silver, mercury
perchloric acid	acetic anhydride, bismuth and its alloys, alcohols, paper, wood
peroxides	reducing substances
phosphorus (white)	air and oxygen
potassium	CCl ₄ , CO ₂ , H ₂ O, chlorinated hydrocarbons, halogens, CO
potassium chlorate	H ₂ SO ₄ and other acids
potassium chromate	reducing substances
potassium dichromate	reducing substances and organic substances such as textiles, oil, fat, sugar, sawdust and ammonium salts, C, P, metal powders, sulphides
potassium iodide	reducing substances, Al, C, S, sulphides and many organic substances

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SUBSTANCE	AVOID THE FOLLOWING CONDITIONS AND/OR CONTACT WITH
potassium nitrate	ammonium sulphate and boron compounds
potassium nitrite	many organic substances, inorganic reducing agents and ammonium salts
potassium perchlorate	H ₂ SO ₄ and other acids (see also chlorates)
potassium permanganate	H ₂ SO ₄ , ammonia, acetic acid, HCl, H ₂ O ₂
potassium sulphide	ionised salts
propanol	strong oxidants
silicone oxide	diiodide and nitric acid
silver	acetylene, oxalic acid, tartaric acid, ammonia compounds
sodium bromate, chlorate, chlorite, chromate and nitrate	see potassium flammable and reducing substances
sodium-containing fertilisers	ammonium nitrate, potassium salts, phosphates, acids
sodium nitrite	ammonium nitrate and other ammonium salts, potassium cyanide
sodium peroxide	alcohols, glacial acetic acid, acetic anhydride, benzaldehyde, carbon disulphide, glycerol, ethylene glycol, ethyl acetate, methyl acetate, furfural
sodium persulphate	reducing substances
sulphur	strong oxidants
sulphuric acid	calcium chlorate, calcium chlorite, magnesium carbonate, H ₂ O, bases, alcohols
tetrahydrofurane	strong oxidants
zinc (powder)	oils, fats, hydrogen, flammable substances

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Appendix 8: Summary of the separable waste categories according to LETO

As discussed previously, a number of categories of hazardous waste have been defined in consultation with LETO. The list with categories has been included in Appendix 8. Because a complete description of all 62 categories would exceed the scope of this manual, only the list with categories has been used. You can use this information to create a list with categories that applies specifically to your own department or office. For a more extensive description of the categories, you can contact Mr B. Dekker of the AMD, (0317 485461).

Ca t.	Type of waste
1	Various acids, inorganic
2	COD/CZV waste, inorganic
3	Nitric acids and nitrates, inorganic
4	Various bases, inorganic
5	Ammonia, inorganic
6	Kjeldahl base, inorganic
7	Cyanide containing bases, inorganic
8	Fixative
9	Photographic developer
10	Paint/ink containers
11	Halogen-poor organic liquids (high caloric value)
12	Halogen-rich organic liquids
13	Various laboratory chemicals
14	Cyanide-containing laboratory chemicals
15	TL lamps
16	High pressure lamps (HPL/HPI/SON)
17	Low pressure lamps (SOX/SOX-E)
18	Lead batteries
19	Batteries
20	Computer tapes
21	Aerosol cans, PUR cans
22	Medicines
23	Pesticides and other extremely toxic substances
24	Wastewater with pesticides
25	Chemically contaminated biological waste
26	Injection needles
27	Office waste

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Ca t.	Type of waste
28	Empty containers with chemical residues
29	Organic acids
30	Metallic mercury
31	Mercury-containing objects
32	Adhesive resin remains
33	Wiping cloths with paint and ink residues
34	Inorganic salts, quantities > 10 kg.
35	PCB-containing condensers
36	Contaminated soil
37	Photographic paper
38	Oil filters
39	Asbestos-containing materials
40	Activated carbon
41	Hydrogen peroxide
42	Fats
43	Batteries > 1 kg. dry
44	Filter mats (paint)
45	Refrigerators
46	Waste oil, brake fluid (no used oil)
47	Oil for drilling, cutting, grinding, pressing
48	Garage waste (dry, contaminated only with oil)
49	Filters with chemical residues
50	Electronic waste
51	Energy-saving lamps (PL/SL) + non-standard TL lamps
52	Used oil
53	Water with ammonium acetate
54	Fibre slurry
55	Mixture of fixative / developer
56	Glass waste from laboratories
57	Household chemicals, soaps/ cleaners
58	Paving bricks with sodium azide
59	Soil with sodium azide
60	Silver residues in sealed PE container
61	25% ethanol in water
62	Coolant in 60 l sealed metal container

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Appendix 9: Summary of forbidden substances

The following is a summary of forbidden substances as stipulated by the Water Board 'Vallei en Eem'. The substances have been selected on the basis of their toxicity, persistence or bioaccumulation. This list is comprised of 132 substances that are included in the appendix of the EC-guideline 76/464/EEC and that are theoretically considered to be forbidden for the purposes of granting permits. This list applies only to wastewater. There are other lists of forbidden substances for atmosphere and soil, but there is a great deal of overlap between them. The maximum allowable concentration for discharge when dissolved in water is 100 µg per litre, except for forbidden substances in Class A of the BAGA list (max. discharge concentration 50 µg per litre).

List of forbidden substances

- | | |
|---|--|
| 1. 1,1,1-trichloroethane | 32. 2-chloroaniline |
| 2. 1,1,2,2-tetrachloroethane | 33. 2-chloroethanol |
| 3. 1,1,2-trichloroethane | 34. 2-chlorophenol |
| 4. 1,1,2-trichlorotrifluoroethane | 35. 2-chlorotoluene |
| 5. 1,1-dichloroethane | 36. 3-chloroaniline |
| 6. 1,1-dichloroethene
(vinylidenechloride) | 37. 3-chlorophenol |
| 7. 1,2,4,5-tetrachlorobenzene | 38. 3-chloropropene (allylchloride) |
| 8. 1,2,4-trichlorobenzene | 39. 3-chlorotoluene |
| 9. 1,2-dibromoethane (ethylene
dibromide) | 40. 4,4-diaminodiphenyl (benzidine) |
| 10. 1,2-dichlorobenzene | 41. 4-chloro-2-nitroaniline |
| 11. 1,2-dichloroethane | 42. 4-chloro-2-nitrotoluene |
| 12. 1,2-dichloroethene | 43. 4-chloro-2-methylphenol (...-3-
cresol) |
| 13. 1,2-dichloropropane | 44. 4-chloroaniline |
| 14. 1,3-dichloro-2-propanol | 45. 4-chlorophenol |
| 15. 1,3-dichlorobenzene | 46. 4-chlorotoluene |
| 16. 1,3-dichloropropene | 47. aldrin |
| 17. 1,4-dichlorobenzene | 48. anthracene |
| 18. 1-chloro-2-4-dinitrobenzene | 49. arsenic and arsenic compounds |
| 19. 1-chloro-2-dinitrobenzene | 50. atrazine |
| 20. 1-chloro-3-dinitrobenzene | 51. azinphos-ethyl |
| 21. 1-chloro-4-dinitrobenzene | 52. azinphos-methyl |
| 22. 1-chloronaphthalene | 53. bentazon |
| 23. 2,3-dichloropropene | 54. benzene |
| 24. 2,4,5-trichlorophenoxyacetic acid
(2,4,5-t) | 55. biphenyl |
| 25. 2,4,6-trichloro-1,3,5-triazine
(chlorotriazine) | 56. cadmium and cadmium compounds |
| 26. 2,4-dichlorophenol | 57. chloroacetic acid |
| 27. 2,4-dichlorophenoxyacetic acid
(salts, esters) | 58. chlorobenzene
(monochlorobenzene) |
| 28. 2,4-dichlorophenoxypropionic acid
(dichloroprop) | 59. chlordane |
| 29. 2-amino-4-chlorophenol | 60. chloroethene (vinylchloride) |
| 30. 2-chloro-butadiene-1,3
(chloroprene) | 61. chloronaphthalene (all isomers) |
| 31. 2-chloro-p-toluidine | 62. chloronitrotoluenes |
| | 63. chlorotoluidines |
| | 64. chlorotoluene |
| | 65. chloralhydrate |
| | 66. cumaphos |

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- 67. DDT (and the metabolites DDD and DDE) 107. omethoate
- 68. demeton (0,-s,-s-methyl and s-methyl-sulfone)
- 69. dibutyltin dichloride (dibutyltindichloride)
- 70. dibutyltin oxide
- 71. dibutyltin salts (all)
- 72. dichloroanilines (all isomers)
- 73. dichlorobenzidines (dichlorodiaminodiphenyl)
- 74. dichlorodiisopropyl-ether
- 75. dichloromethane (methylene chloride)
- 76. dichloronitrobenzene (all isomers)
- 77. dichlorotoluene (benzylidene chloride)
- 78. dichlorvos
- 79. dieldrin (1,2,3,4,10, 10-hexa-2-chlor-etc.)
- 80. diethylamine
- 81. dimethoate (dichlorvos)
- 82. dimethylamine
- 83. disulfoton
- 84. endosulfan
- 85. endrin
- 86. epichlorohydrine (isobutylacrylate)
- 87. ethylbenzene
- 88. fenitrothion
- 89. fenthion
- 90. phoxim
- 91. heptachlor incl. Heptachlor epoxide
- 92. hexachlorobenzene
- 93. hexachlorobutadiene
- 94. hexachlorocyclohexane
- 95. hexachloroethane
- 96. isodrin
- 97. isoprophyl benzene
- 98. mercury and mercury compounds
- 99. linuron
- 100. malathion
- 101. MCPA (2-methyl-4-chlorophenoxyacetic acid)
- 102. mecoprop-p (2-methyl-4-chlorophenoxy-propionic acid/MCPP)
- 103. methamidophos
- 104. mevinphos
- 105. monolinuron
- 106. naphtalene

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- 108. oxydemeton-methyl
- 109. PAK (6 indicators of Borneff)
- 110. parathion and parathionmethyl
- 111. pentachlorophenol (pcp)
- 112. polychlorobiphenyls -triphenyls
(pcb)
- 113. propanil (3,4-
dichlorophenylpropionanilide)
- 114. pyrazon (cloridazon)
- 115. simazine
- 116. tetrabutyltin
- 117. tetrachloroethene
(perchloroethylene)
- 118. carbon tetrachloride
(tetrachloromethane)
- 119. toluene (methylbenzene)
- 120. triazophos
- 121. tributylphosphate
- 122. tributyltin oxide
- 123. trichlorobenzene (all isomers)
- 124. trichloroethene
- 125. trichlorophenols (all isomers)
- 126. trichlorofon
- 127. trichloromethane (chloroform)
- 128. triphenyltin acetate
- 129. triphenyltin chloride
- 130. triphenyltin hydroxide
- 131. trifluralin (trifluralin)
- 132. xylenes (all isomers)

Appendix 10: Warning signs and signals

An overview of all signs:

- Prohibition signs (red en white)
- Warning signs (black and yellow)
- Order signals
- Safety facilities and rescue signals
- Signs in case of fire-extinguishing

There's an overview at the internet site: www.rdmg.nl/html/borden.html

1) Prohibition signs (red en white)



Smoking prohibited



Fire, naked flames and smoking prohibited



Unsafe for pedestrians



No drinking water



No trespassing



Water may not be used to extinguish fire



Don't touch



Transportation vehicles prohibited

2) Warning signs (black and yellow)



Danger



Toxic substances



Hanging load

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Corrosives



Explosive substances



Flammable substances or high temperatures



Biohazard



Non-ionic substances



Radioactive substances



Low temperatures



Risk of electric current



Oxidizing substances



Beware of transportation vehicles



Substantial magnetic field



Risk of laser radiation

3) Order signals (blue en white)



Safety boots compulsory



Eye protection compulsory



Ear protection compulsory



Safety gloves compulsory



General sign (mostly in combination with other signs)



Safety helmet compulsory

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Safety suit compulsory



Breath protection compulsory

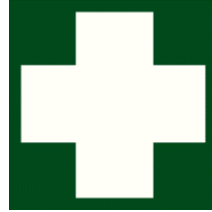
4) Safety facilities and rescue signals (green en white)



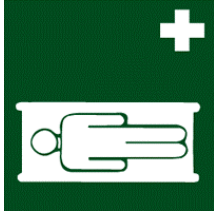
Emergency exit



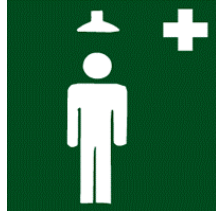
Route indicator



First-aid station



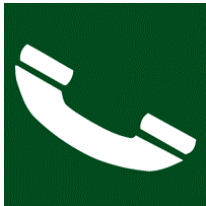
Stretcher



Safety shower

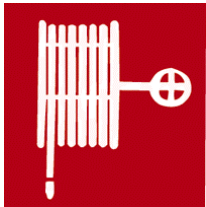


Safety Eye shower



First-aid telephone (in case of emergency)

5) Signs in case of fire-extinguishing (red en white)



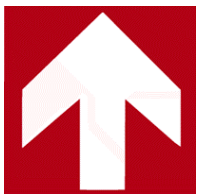
Fire-hose



Fire-escape ladder



Fire extinguisher



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Route indicator (mostly in
combination with other signs)

Telephone for
fire
extinguishing



Appendix 11: Overview of AI- and P-sheets

In Dutch only.

Arbo Informatiebladen (AI-sheets):

AI-1	Arbo- en verzuimbeleid
AI-2	Werken met beeldschermen
AI-3	Asbest
AI-4	Lawaai op de arbeidsplaats
AI-5	Veilig werken in besloten ruimten
AI-6	Werken met kankerverwekkende stoffen en processen
AI-7	Kantoren
AI-8	Zittend en staand werk
AI-9	Biologische agentia
AI-10	
AI-11	Machineveiligheid: afschermingen en beveiligingen
AI-12	Zwangerschap en arbeid
AI-13	Kassawerkplekken
AI-14	Bedrijfsruimten- inrichting, transport en opslag
AI-15	Veilig werken op daken
AI-16	Beveiligen van wand- en vloeropeningen
AI-17	Hijs- en hefgereedschap en veilig hijsen
AI-18	Laboratoria
AI-19	Verfverwerking
AI-20	Werken onder koude omstandigheden
AI-21	Rolsteigers
AI-22	Werken met verontreinigde grond
AI-23	Toxische stoffen in de houtverwerkende industrie
AI-24	
AI-25	Preventie van zware ongevallen door gevaarlijke stoffen
AI-26	Veiligheidsinformatiebladen en werkpleketikettering
AI-27	Medisch toezicht op radiologische werkers
AI-28	Werken met bestrijdingsmiddelen

Publicatiebladen (P-sheets):

P1	Inhoud verbandtrommels Middelen voor de Eerste hulp bij ongevallen op het werk.
P6	Stalen steigers, opgebouwd uit stalen pijpen die onderling door koppelingen zijn verbonden.
P7	Aanwijzingen voor opslag, vervoer, opstelling en gebruik van acetyleenflessen.
P8	Beveiliging van stempels van metaalpersen.
P9	Snij-trekstempels: Beschutting bij het stampen van voorwerpen uit stroken.
P10	Excenterpersen: Beveiliging bij inlegwerk.
P14	Batterijen, acetyleenflessen en zuurstofflessen. Inrichten, opstellen en gebruik.
P15	Houten steigers.
P25	Putten en sleuven.
P26	Aanwijzingen voor het veilig repareren van vaten.
P27	Aanwijzingen voor het veilig bouwen van gewapend-betonschoorstenen.
P28	Voornaamste bepalingen Landbouwveiligheidsbesluit.

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- P29 Vierwielige trekkers in de landbouw.
- P30 Bouw en inrichting van bedrijfsruimten.
- P31 Veiligheidswenken voor de aanstaande technici tijdens het werken in fabrieken of werkplaatsen en op bouwwerken.
- P38 Het instellen en het gebruik van de freesbeveiliging model SUVA bij het frezen van rechte werkstukken, invalwerk en kleine werkstukken
- P39 Het instellen en het gebruik van de freesbeveiliging model SUVA bij het frezen van gebogen werkstukken.
- P40 Schilden op schepen; Beveiliging tegen uitlichten.
- P41 Zittend en staand werk, ergonomische aspecten.
- P43 Schiethamers; Constructie, levering, gebruik en onderhoud.
- P46 Propaan; Gebruik uit flessen.
- P47 Deuren en beweegbare hekken; Constructie en onderhoud.
- P48 Houtcirkelzaagmachines; Constructie, veilig gebruik.
- P49 Vlakbankbeveiliging met parallelgeleiding.
- P50 Tricchofitie (een besmettelijke huidziekte bij het vee, die op de mens kan worden overgebracht).
- P53 Agrarische bedrijfsgebouwen; Bouw, inrichting en gebruik.
- P57 Bedrijfshygiënische voorzieningen in het bouwbedrijf; Schaftruimten en aanhorigheden.
- P58 Bedrijfshygiënische voorzieningen in het bouwbedrijf; Woon- en slaapvertrekken met aanhorigheden.
- P61 Aanwijzingen voor het veilig werken op daken.
- P62 Persoonlijke beschuttingsmiddelen in het bouwbedrijf.
- P64 Veilig werken met de motorkettingzaag.
- P66 Aanwijzingen voor de constructie en gebruik van vangnetten.
- P68 Batterij propaanflessen; Inrichting, opstelling en gebruik.
- P69 Veilig werken in besloten ruimten.
- P70 Aanwijzingen voor het veilig werken met onverzadigde polyesters.
- P71 Aanwijzingen voor het veilig werken met cyaanverbindingen.
- P72 Gedeelde velgen voor luchtbanden; Veilig gebruik en onderhoud.
- P73 Instructie ingevolge artikel 10 van het Bestrijdingsmiddelenbesluit (Verplicht in de bewaarplaats op te hangen).
- P74 Vloeibare zuurstof; Opslag in stationaire reservoirs.
- P75 Aanwijzingen voor het beveiligen van wand- en vloeropeningen op bouwwerken en onderhoudswerken, alsmede voor een veilige constructie en opstelling van bouwladders, trappen, loopplanken en loopbruggen
- P77 Het tegengaan van beroepshuidaandoeningen.
- P80 Aanwijzingen voor de veilige constructie, de sterkte, het onderhoud en de beproeving van met de hand bewogen takels, vijzels en dommekrachten.
- P81 Hoogwerkers, constructie gebruik en onderhoud.
- P82 Lieren; Veilige constructie, sterkte onderhoud en

- beproeving.
- P83 Sloopwerkzaamheden; Veilig uitvoeren van sloopwerkzaamheden.
- P84 Cirkelmaaiers
- P87 Goederenheffers; Constructie, gebruik en onderhoud.
- P88-2 Gevaarlijke stoffen in de haven; Veilig stuwen in containers; Veilig stuwen van containers.
- P89 Blauwzuur; Veilige behandeling in de haven.
- P90 Zwavelwaterstof; Veilige behandeling in de haven.
- P91 Zwavelkoolstof; Veilige behandeling in de haven.
- P92 Chloor; Veilige behandeling in de haven.
- P93 Chloorwaterstof; Veilige behandeling in de haven.
- P94 Fosgeen; Veilige behandeling in de haven.
- P95 Allylalcohol; Veilige behandeling in de haven.
- P96 Fluor; Veilige behandeling in de haven.
- P97 Fluorwaterstof; Veilige behandeling in de haven.
- P98 Acetoncyaaanhydrine; Veilige behandeling in de haven.
- P99 Chloorpicrine; Veilige behandeling in de haven.
- P100 Acrylnitil; Veilige behandeling in de haven.
- P101 Zwaveldioxide; Veilige behandeling in de haven.
- P102 Epichloorhydrine; Veilige behandeling in de haven.
- P103 Allylchloride; Veilige behandeling in de haven.
- P104 Broom; Veilige behandeling in de haven.
- P105 Broomwaterstof; Veilige behandeling in de haven.
- P107 Acetonitril; Veilige behandeling in de haven.
- P108 Methylbromide; Veilige behandeling in de haven.
- P109 Acroleïne; Veilige behandeling in de haven.
- P110 Loodakylverbindingen; Veilige behandeling in de haven.
- P111 Parathion; Veilige behandeling in de haven.
- P112-1 Ademhalingsbeschermingsmiddelen; Overzicht en toepassing.
- P112-2 Ademhalingsbeschermingsmiddelen; Overzicht en beschrijving
- P112-3 Keuzetabel Ademhalingsbeschermingsmiddelen.
- P115-1 Hijsgereedschappen; Wettelijke bepalingen
- P115-2 Hijsgereedschappen; Constructie, sterkte, beproeving, onderhoud.
- P115-3 Hijsgereedschappen en hijswerktuigen; Veilig hijsen.
- P117 Montagebouw (beton, steen); Vervaardigen en verwerken van elementen.
- P118 Laadgerei aan boord van schepen; Ontwerpen, berekenen, vervaardigen en beproeven.
- P118-E Cargo handling gear on board of ships; Design, calculation, manufacture and testing,
- P120 Verplaatsbare hangsteigers; Constructie, gebruik en onderhoud
- P124 Aanhangwagens en getrokkenwerktuigen op wilen in de landbouw; Constructie en gebruik.
- P126 Langzaam lpende metaalcirkelzaagmachines.
- P127 Kraanbanen voor bouwkranen
- P128 Montage van staalconstructies.
- P129 Binnenvaarttankers; Laden en lossen van vloeibare gevaarlijke stoffen een tot vloeibare verdichte gassen.
- P130 Laboratoria; Veiligheid bij gebruik van gevaarlijke stoffen.

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- P130-1 Laboratoria; Veiligheid en hygiëne, Algemeen
- P131 Uitsteeksteigers.
- P132-1 Mobiele landbouwwerktuigen en -machines.
- P133 Tweewielige trekkers met aanbouwwerktuigen.
- P134-1 Zweminrichtingen; Wettelijke bepalingen.
- P134-2 Zweminrichtingen; De opslag en het gebruik van natrium hypochloriet (-chloorbleekloog)
- P134-3 Zweminrichtingen; De opslag en het gebruik van zoutzuur.
- P134-4 Zweminrichtingen; De opslag en het gebruik van zwavelzuur.
- P134-5 Zweminrichtingen; De opslag en het gebruik van kooldioxide
- P134-6 Zweminrichtingen; Elektrolyse (-apparatuur)
- P135 Bouwcirkelzaagmachines
- P136 Mobiele heistellingen
- P137 Veilig werken met springstoffen
- P139 Verfverwerking
- P140 Silo's; Veilige inrichting, veilig werken.
- P141 Elektrijsht gestuurde tweehanden bedieningen; Veiligheidseisen.
- P142 Arbeid in koel- en vriesruimten.
- P143 Transport en opslag in bedrijven; Heftrucks, trekkers, wagens, transportroutes en stapelplaatsen.
- P145 Nationale MAC-lijst 1994
- P147 Elektrische meetopstellingen in lokalen van onderwijsinstellingen; Veiligheidsinrichtingen.
- P148 Veilig monteren van trekkerbanden.
- P149 Stoffbestrijding bij ambachtelijke verwerking van aardewerk.
- P150-1 De Nederlandse freesbeveiliging; Het instellen en het gebruik van de Nederlandse freesbeveiliging bij het frezen van rechte werkstukken.
- P150-2 De Nederlandse freesbeveiliging; Het instellen en het gebruik van de Nederlandse freesbeveiliging bij het frezen van invalwerk.
- P150-3 De Nederlandse freesbeveiliging; Het instellen en het gebruik van de Nederlandse freesbeveiliging bij het frezen van gebogen werkstukken.
- P151 Rolsteigers; Vervaardiging, gebruik en onderhoud.
- P153 Veiligheid in ruimten bewaakt door automatische kooldioxide brandblusinstallaties.
- P154 Stalen schroefstempels; Gebruik en onderhoud.
- P155 Plateauliften aan boord van schepen.
- P155-E Cargo lift platforms on board ships.
- P156 Hijskranen; Onderzoekingen en beproevingen.
- P158-1 De bescherming van de aftaktussenas.
- P158-2 De bescherming van de aftaktussenas.
- P159 Hefbruggen; Constructie, onderhoud en gebruik.
- P161 Boomverzorging.
- P163 Garageverwarming.
- P164-1 Houtfreesmachines; Tafelfreesmachines.
- P164-2 Houtfreesmachines; Bovenfreesmachines
- P164-3 Houtfreesmachines; Meerzijdige schaafmachines
- P164-4 Houtfreesmachines; Pennebanken/Alleskunnens.

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- P164-5 Houtfreesmachines; kopieerfreesmachines.
- P164-6 Houtfreesmachines; gatenfrees-, gatenboor-, gatensteekmachines.
- P165 Veiligheid in ruimten bewaakt door Halon 1211 brandblusinstallaties
- P166-1 Lawaai op de arbeidsplaats; Algemeen.
- P166-2 Lawaai op de arbeidsplaats; Gehoorbeschermingsmiddelen.
- P167 Chemisch reinigen van textiel
- P168 Werken met houtbewerkingsmachines; Wettelijke bepalingen.
- P169 Hogedrukreiniging met vloeistof; Handbediende installaties.
- P170-1 Werken met lood; Het Loodbesluit.
- P170-2 Werken met lood; Het beperken van de blootstelling aan loodstof in accumulatorenfabrieken.
- P171-1 Vaklokalen en theorievaklokalen; Scheikunde.
- P172-1 Arbeidsveiligheidsrapport; Leidraad aanwijzing AVR-plichtige installaties
- P172-1E Occupational Safety Report; Designatory Guidelines for AVR mandatory installations.
- P173 Persoonlijke beschermingsmiddelen; te gebruiken bij werkzaamheden in bossen, plantsoenen en natuurterreinen.
- P174 Werken met verontreinigde grond inclusief bodemsanering.
- P175 Bosmaaier; Constructie en gebruik.
- P176 Werken met gaszuurstofbranders in besloten ruimtes.
- P177-1 Gaspakketten; Acetyleen.
- P179 Zwangerschap en arbeid.
- P180 Lichtschermen en ander a-materiële beveiligingsschermen.
- P181 Machines en werktuigen in champignonkwekerijen.
- P182 Gevarenclassificatie-indeling met betrekking tot gasontploffingsgevaar.
- P183 Kassawerk in zelfbedieningswinkels, Ergonomische en functie-inhoudelijke aspecten.
- P184 Werken met beeldschermen.
- P185 Handhavingsbeleid en lijst van ernstige overtredingen.
- P186 Kantoren, informatie, organisatie en besluitvorming bij kantoorbouw- en inrichtingsprojecten.
- P187 Werken met kankerverwekkende stoffen en processen.
- P188 Asbest.
- P189 Ergonomische richtlijnen voor informatieoverdracht in regelkamers.
- P190 Arbo- en verzuimbeleid.
- P191 Veiligheid in ruimten bewaakt door automatische brandblusinstallaties met inerte gassen of mengsels hiervan.
- P192 Baliewerk.
- P193 Duikarbeid.
- P194 Caissonarbeid.
- P195 Seksuele intimidatie, agressie en geweld in de Arbeidsomstandighedenwet.
- P196 Leidraad voor het opstellen van een "Bedrijfsnoodplan"
- P197 Arbeidsomstandigheden Thuiswerk (waaronder begrepen telewerk in een woning).

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Appendix 12: List of literature

The literature below is used to compose this Basic Manual of Occupational Health and Environmental Hygiene.

Publications of the Occupational Health and Environmental. Service of Wageningen UR:

- 'Arbo en milieu jaarplan 2000, centraal en decentrale onderdelen', april 2000;
- 'Arbo en milieu jaarverslag 1999, centraal en decentrale onderdelen, april 2000;
- 'Functieomschrijving Kwaliteits-, Arbo- en Milieucoördinator', *;
- 'Milieu-analyse Wageningen Universiteit (in wording)', december 1999;
- Nieuwsbrieven, juni 1999, september 1999, december 1999, maart 2000;
- 'Legionella preventiebeleid', maart 2000;
- 'RSI en beeldschermwerken', november 1999;
- 'Visie milieu 2000-2004 (in wording)';
- 'Visie op bedrijfshulpverlening Wageningen UR (concept)', april 2000;

Uitgaven van afdelingen van Wageningen Universiteit of DLO:

- Bureau Veiligheid en Milieuhygiëne-DLO, 'Handboek milieuzorg DLO, handreiking voor de instituten', maart 1999;
- Gebouwen & Terreinen, 'Concept technisch programma van eisen voor de nieuwbouw Wageningen' juni 1995;
- Gemeente Wageningen, Wageningen Universiteit, e.a. 'Projectplan Wageningen Ecopolis (concept)', oktober 1999;
- Verduin, B.J.M., 'Voorstel organisatie BVF Wageningen Universiteit', februari 2000;
- Vertrouwenspersonen, 'Wat doen vertrouwenspersonen', *.
- Personeelszaken Wageningen Universiteit, 'Richtlijnen ziekteverzuimbegeleiding', *.
- Personeelszaken Wageningen Universiteit, 'Ziek, wat nu? (brochure)',*.

Overige uitgaven:

- Arbeidsinspectie, 'Een boete van de Arbeidsinspectie. Kan dat?' , juni 1999 B255, Den Haag.
- Academisch Ziekenhuis Utrecht, 'Handboek Arbo & Milieu 1998 AZU', 1998; Utrecht.
- Arbo Management Groep, 'Overeenkomst Wageningen Universiteit (contract voor 2000)',
- *, 'Copernicus nieuws, duurzame ontwikkeling in het hoger onderwijs', december 1999.
- Dienst voor Veiligheid en Milieu, Rijksuniversiteit Leiden, 'Veiligheid en milieu in laboratoria', 1995, Leiden Leven, van 't, I, ,
- Iping, P.J.M. en Zwaard, A.W., 'Arbo en binnenmilieu, risico's inventariseren, evalueren en beheersen', jaarboek, Samson, Alphen aan de Rijn/ Diegem, 1999.
- KAM-zorg, hoofdstuk 1, Arbo en milieu, wet- en regelgeving, april 1997
- Koot- Gronsvelt, E. , 'Veilig en gezond werken in plantenkassen, Risico's bij het werken in kassen met speciale aandacht voor bestrijdingsmiddelen', scriptie, september 1998, Wageningen.

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- Nederlandse Vereniging voor Microbiologie (NVVM), 'Veilig werken met micro-organismen, parasieten en cellen in laboratoria en andere werkruimten, theorie en praktijk', 1999, Bilthoven.
- Nederlands Instituut voor Arbeidsomstandigheden (NIA), 'Arbeidsomstandigheden en aansprakelijkheid, wetgeving en jurisprudentie, augustus 1996, Amsterdam.
- Ministerie van Sociale Zaken en Werkgelegenheid, 'De Arbowet in kort bestek', april 1999 B989, Den Haag;
- Ministerie van Sociale Zaken en Werkgelegenheid, 'Een stap verder met de Arbowet '98', juni 1999 B256, Den Haag.
- Ministerie van Sociale Zaken en Werkgelegenheid, 'Veilig werken met niet-ioniserende straling en velden', november 1997 B233, Den Haag;
- Ministerie van Sociale Zaken en Werkgelegenheid, 'Preventie van werkstress', juni 1999 B964, Den Haag;

Internetsites:

- <http://www.wau.nl/amd/home>
- <http://bio.vu.nl/vakgroepen/mnb/safety/calamiteiten.html>
- <http://nl.osha.eu.int/topics/branche/onderwijs.stm>
- http://www.leiden_univ.nl/bvdu/dvm/links/bookmark.htm
- <http://www.rdmg.nl/html/borden.htm>
- <http://www.tno.nl/instit/nia/aminfo/faq/wetgeving/index.htm>
- <http://www.xs4all.nl/~ulenbelt/gevstof.html>

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Appendix 13: Abbreviations used

AI-blad	Occupational health and safety information sheet	DLO	Agricultural Research Department
ALARA	As Low As Reasonably Achievable	DNA	Deoxyribonucleic acid
AMD	Occupational Health and Environmental Service	DM	Dry matter
AMG	Occupational Management Group	GMO	Genetically Modified Organism
AmvB	General Administrative Measure	B	Behavioural regulations
Arbowet	Working Conditions Act	regulations	
GRO	General Radiation Officer	GROS	Hazardous Substances Registration and Tracking System
BAGA	Hazardous Waste Definition Decree	G&T	Buildings and Grounds Office
BBR	Administrative and Management Regulations	GTG	Buildings, Grounds and Landscaping
BHV	Emergency Team	GV	General Meeting
BIM	Internal Industrial Environmental Protection	HEPA filter	High Efficiency Particulate Air filter
BIMS	Internal Industrial Environmental Protection Systems	HRM	Human Resources Management
BsK	Radiation Protection Decree	IR	Infrared
BSO	Biological Safety Officer	IvB	Facilities and Permits Decree
BVM	Office of Safety and Environmental Hygiene	QOE Officer	Quality, Occupational Health and Environmental Officer
CAO	Collective Labour Agreement	Kew	Nuclear Energy Act
CKP	Centre for Small Laboratory Animals	Cfu	Colony forming units
COGEM	Genetic Modification Committee	LC ₅₀	Lethal Concentration at which 50% of experimental animals die
COR-DLO	Central Employees Council of the DLO	LD ₅₀	Lethal Dosage at which 50% of experimental animals die
COVRA	Central Organisation for Radioactive Waste	L	Laboratory regulations
CPR	Committee for the Prevention of Disasters caused by Hazardous Substances	regulations	
CTB	Pesticide Approval Commission	LRO	Local Radiation Officer
CvB	Executive Board	WAU	Wageningen Agricultural University
DAM-cie	Departmental Occupational and Environmental Committee	MAC	Maximal Acceptable Concentration
DAMO	Departmental Occupational and Environmental Support Person	MSDS	Material Safety Data Sheet
DB (A)	Decibel (unit of sound energy)	NEN ...	Netherlands Norm
		NMR	Nuclear Magnetic Resonance
		NVVM	Netherlands Association for Microbiology
		OCs	Decentral Employee Councils (Wageningen University)
		R&E	Research and Education



ORs	Employees Councils of the DLO	UV	Ultraviolet
OR-WU	Central Employee Council Wageningen University	VM	Responsible Staff Member
PAGO	Periodic Occupational Health Evaluation	SMT	Safe Microbiological Technique
P-blad	Publication sheet	VOC	Volatile Organic Compounds
PPA	Personal Protection Aid	VROM	Public Health, Planning and Environment (Ministry)
RI&E	Risk Inventory and Evaluation	Wageningen	Wageningen University and
R number	Risk number	UR	Research Centre
RSI	Repetitive Strain Injury	Wm	Environmental Protection Act
RvB	Executive Board	WMS	Environmentally Hazardous Substances Act
SMT	Social Medical Team	Wvo	Surface Waters Contamination Act
S number	Safety number		
SR	Student Council		
SZW	Social Affairs and Employment (Ministry)		

Appendix 14: Telephone numbers of contacts and instances

Department/ institute	DAMO/KAM officer
Plant Research International	Mr. R. Bouwer % 0317 477160
Alterra	Mr. G.H.J. de Laet % 0317 477775
ATO	Mr. Th. C. Wolters % 0317 478532
DLO foundation	Mrs. C.A.A. Vermaak % 0317 474062/74110
ID-Lelystad	Mr. H. van Beek, % 0320 38238
IMAG	Mr. J. V. Klarenbeek % 0317 476500/76502
LEI	Mr. W.J. Pronk % 070 3358149
RIKILT	Mr. P.H.U. de Vries % 0317 475471
RIVO	Mrs. A.V. Baerveldt % 0255 564618 (mo and thu)
Plant Sciences	Mrs. M.E. van den Noort % 0317 482815
Environmental Sciences	Mr. B. Peelen % 0317 482758
Support services	Mr. I. van der Molen % 0317 482236
Agrotechnology and Food Sciences	Mrs. H. Reitsma % 0317 485495
Animal Sciences	Mr. B. Diekema % 0317 483912
Environmental Sciences	Mr. W. Houweling % 0317 484494
Staff Office	Mr. A.J. van Brakel % 0317 484117/485050

Department/ institute	Biological Safety Officer
Plant Research International	Mr. R. Bouwer % 0317 477160/ Mr. G.C. Angenent % 0317 477131
ID-Lelystad	Mr. O. Jellema % 0320 238252
Animal Sciences	Mr. E. Egberts % 0317 483370/483952
Plant Sciences	Mr. D. Verduin % 0317 483093
Agrotechnology and Food Sciences	Mr. W. van Dongen % 0317 483859/483728

	Laboratory Animal Officer
Wageningen University	Mr. F.A.R. van den Broek % 0317 484206/ 482530
DLO	Mr. P.S. Kroon % 0320 238561/ 238562



	Trusted Representative
Wageningen University	Mr. H. van den Broek % 0317 483141/484047
	Mrs. M. Wagenaar-Brouwer % 0317 484553
	Mrs. T. de Boer % 0317 483119/ 483593 (mostly for students)
ALTERRA	Mrs. W. van Eck % 0317 474416
ATO	Mrs. E.T. van Tienen % 0317 477568 Mrs. F. Verdenius % 0317 475305
Staff Office (DLO)	Mrs. M.E.M. de Wild % 0317 474106
ID-Lelystad	Mrs. E.M. Janse % 0320 238330 Mrs. S.H.M. Jeurissen % 0320 238085
IMAG	Mr. E.A. van Os % 0317 476316 Mrs. W.C. Drost % 0317 476465
LEI	Mrs. Z.N. Abdulla % 070 3358281
Plant Research International	Mrs. I.M. van der Meer % 0317 477142 Mrs. P. van Es-Krop % 0317 475718 Mrs. E. den Belder % 0317 476105
Library	Mrs. M. Wagenaar % 0317 484553
RIKILT	Mrs. M.J.H. Tomassen % 0317 475476
RIVO	vacancy

Company Social Worker DLO	Company Social Worker WU
Mr. F.A.J. van As, % 0317 474140	Mrs. T.E.A.M. Gerrits % 0317 482224
Mr. L. Hoevenaren % 0317 474159	Mrs. C.G. Nota % 0317 483843
Mrs. E.J. Kuneman % 0317 474161	
Mrs. S.M.R. de Lange % 0317 474160	

	Industrial Physician
Plant Research International, Alterra, ATO, DLO, IMAG, IPO, RIKILT, Library (DLO),	Mr. A.W.T.J.F. Langens % 0317 466600
ID-Lelystad	Dr. H. Heijstek % 0320 241464
RIVO	Mr. F.J.E. Stevens % 023 5161362
Library (WU), Plant Sciences, Agrotechnology and Food Sciences, Animal Sciences, Staff Office	Dr. R.J. Nuyt % 0317 466600
Environmental Sciences, Social Sciences, Agrotechnology and Food Sciences	Dr. C. Post % 0317 466600
LEI	Mr. T.A. Kroon % 070 3181853

	Head Emergency Team (HBHV)
"de Bongerd"	Mr. H. Meijers, HBHV % 0317 48 38 77
"de Dreijenborch"	Mr. W.G. Kampes, HBHV % 0317 48 26 90
"de Hucht"	Mr. F.R. de Klerk, HBHV % 0317 48 34 66
"de Leeuwenborch"	Mr.R.M. Pieters, HBHV % 0317 48 24 89 / 48 36 39
"de Nieuwlanden"	Mr. H.F. Gertsen, HBHV % 0317 48 25 59
"de Wereld"	Mrs T. Jansen, Contact persoon
"Hinkeloord" Bosbouw	Mr. A.T.F. Helmink, HBHV % 0317 48 29 21
Achter de Aula	Ir. H.J. van 't Klooster, Contact person % 0317 48 33 19 / 48 40 13

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Agronomie	Contact person BHV, vacancy
Agrotechnion	Ing. C.J. van Asselt, HBHV % 0317 48 36 12 / 48 29 35
Alterra (location IBN)	Mr. K. Hulstein, HBHV % 0317 47 44 40
Alterra (location SC)	Mr. K. Hulsteijn, HBHV % 0317 47 44 40
ATO	Mr. J.B. Bolsenbroek, HBHV % 0317 47 85 20
BBS (Botanical Gardens, University Greenery's and Sport Fields, technical management of the Central Office)	Mr. W. Keuken, HBHV % 0317 48 33 28 / 48 21 14
Staff Office	Mr. G. van Scherrenburg, HBHV % 0317 48 26 31
Binnenhaven-complex	Mr. H. Dijkman, HBHV % 0317 48 29 92
Biotechnion	ing. J.J.W. Sewalt, HBHV % 0317 48 24 75 / 4 8 47 04
Soil Science and Geology	Mrs N. Nakken-Brameijer, HBHV % 0317 48 55 05
Soil Science and Plant Nutrition	Mr. R. van Eck, HBHV % 0317 48 26 60
Botanical Center	Mrs M.E van den Noort, HBHV
Central Storehouse (CM)	Mr. M.D. van Otterloo, HBHV % 0317 48 49 45 / 48 23 01
Central Carpentry	Mr. G.J. van Zalingen, Contactpersoon % 0317 48 22 13
Computechnion	Mr. J. Alderliesten, Contactpersoon % 0317 48 36 88 / 48 38 90
DLO central office	Mr. W.E. ter Beest, HBHV % 0317 47 40 84
Laboratory of Genetics (GEN)	Mr. F.A. van der Hoeven, HBHV % 0317 48 47 00 / 48 30 49
Laboratory of Physical Chemistry Colloid Science (PCC)	Mr. A.J. van der Linde, HBHV % 0317 48 30 66
Laboratory of GIRS / Alterra	Mr. P.F.M. Wenting, HBHV % 0317 47 43 79
Sub-department of Human Nutrition and Epidemiology (HNE)	Mr. D. Joghems, Contactpersoon % 0317 48 21 75
IMAG	Mr. N.H. Bijl, HBHV % 0317 47 63 51
Library (location Jan Kopshuis)	Mrs J.M. Koomans, HBHV % 0317 48 45 29
Horticultural Production Chains Group (HPC)	Mr. A.C. van de Peppel, HBHV % 0317 48 32 52 / 48 46 13
Meteorology and Air Quality Group (MAQ)	drs. C.L.A.M. van den Dries, HBHV % 0317 48 36 11
Laboratory of Microbiology	Mr. F. Lap, HBHV % 0317 48 36 40 / 48 31 08
Sub-department of Environmental Technology	Mr. J.B.R. van der Laan, HBHV % 0317 48 32 00 / 48 49 63
Minderhoudhoeve, Ir. A.P.	ing. J. Overvest, Contactpersoon 0321 - 32 12 00
Laboratory of Organic Chemistry	Mr. G.A. Stork, HBHV % 0317 48 29 79
Plant Research International (location AB)	Mrs. ing. W. Rus-Kortekaas, HBHV % 0317 47 69 93 / 47 69 97
Plant Research International (location CPRO)	Mrs. ing. W. Rus-Kortekaas, HBHV % 0317 47 69 93 / 47 69 97
Plant Research International (location IPO)	Mr. J.H. den Dunnen, HBHV % 0317 47 60 86 / 47 62 20
Biosystematics Group (BIS)	Mr. K. van Setten, HBHV % 0317 48 31 72

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Laboratory of Plant Breeding (PBR)	prof. dr. R.G.F. Visser, HBHV % 0317 48 28 57
RIKILT	Eur. ing. J.M.P. vanTrijp, HBHV % 0317 47 55 90
Department of Plant Sciences	Mrs J. Reintjes, Contactpersoon % 0317 48 44 90 / 48 24 45
Stichting de Bovenste Polder (foundation)	Mr. J.J. Wartna, Contactpersoon % 0317 41 12 83 (huis)
Sub-department of Nature Conservation	Mr. J.D. van Walsem, HBHV % 0317 48 51 48
Sub-department of Toxicology (TOX)	Mr. J.H.J. van den Berg, HBHV % 0317 48 39 19
Transitorium	Mr. J.G.J. Hontelez, HBHV % 0317 48 39 89 / 48 26 40
Unifarm	Mrs A.J. Monster, HBHV % 0317 48 53 32
Zodiac-complex	Mr. J. Moorlag, Contactpersoon % 0317 48 22 29 / 48 39 52