Occupational diseases in Finland in 2002
New cases of occupational diseases reported to the Finnish Register of Occupational Diseases

FINNISH INSTITUTE OF OCCUPATIONAL HEALTH
Occupational diseases in Finland in 2002

New cases of occupational diseases reported to the Finnish Register of Occupational Diseases

Hilkka Riihimäki
Kari Kurppa
Antti Karjalainen
Lea Palo
Riitta Jolanki
Helena Keskinen
Ilpo Mäkinen
Anja Saalo
Timo Kauppinen

FINNISH INSTITUTE OF OCCUPATIONAL HEALTH
HELSINKI
Orders

FINNISH INSTITUTE OF OCCUPATIONAL HEALTH
FIOH-Bookstore
Topeliuksenkatu 41 a A
00250 Helsinki
Finland

fax +358-9-4775 071
www.occuphealth.fi/e
e-mail: kirjakauppa@occuphealth.fi

Layout: Arja Tarvainen

ISBN 951-802-576-2 (Printed version)
ISBN 951-802-580-0 (PDF version)

© FIOH and the authors 2004
Preface

This publication presents a statistical summary of occupational diseases in Finland. The first part of the publication is a review, which aims to give an overall picture of the incidence of occupational diseases in 2002, and of the main trends in recent years. The second part consists of statistical tables, which in greater detail describe the occurrence of occupational diseases in Finland in 2002.

The statistics are based on the Register of Occupational Diseases, established in 1964, and maintained by the Finnish Institute of Occupational Health (FIOH). The Register’s status as a research register was consolidated in the Finnish legislation in 1993. The unit of observation in the register is a filed claim of an occupational disease. Appendix 1 describes the Register of Occupational Diseases in more detail, and appendices 2-4 include the definition of an occupational disease in the Finnish legislation. Unlike in the national insurance statistics, the cases are recorded according to the year of reporting and not according to the insurance technical date of occurrence, which may differ several years in the case of diseases with a long latency time. In addition to cases diagnosed in wage-earners, the statistics also cover farmers, who are recorded in separate statistics in the insurance system.

Comments and questions concerning the occupational disease statistics will be appreciated and should be addressed to Dr. Timo Kauppinen (Finnish Institute of Occupational Health, Topeliuksenkatu 41 a A, FIN-00250 Helsinki, Finland, fax int.+ 358-9-2414634)

Helsinki, February 2004

The authors
Review of occupational diseases in 2002

1 Occupational diseases
2 Hearing loss
3 Repetitive strain injuries
4 Allergic respiratory diseases
5 Skin diseases
6 Asbestos-induced diseases
7 Cancers
8 Occupational diseases in 2002 by EU classification
9 Summary
In 2002 a total of 4807 occupational diseases were reported by physicians or insurance companies to the Finnish Register of Occupational Diseases maintained by the Finnish Institute of Occupational Health (FIOH). This is 119 cases (2%) less than in 2001. Of the main occupational disease categories, the numbers of allergic respiratory diseases and noise-induced hearing loss have decreased during the last years.

The reporting and incidence of occupational diseases is influenced by various factors, such as changes in the legislation, unemployment rate, and diagnostic or reporting practice. Large screening campaigns and changes in the willingness of the workers to come forward with their symptoms or diseases may also affect the occupational disease statistics. For example, the steep increase in 1990–92 and the subsequent decrease in the number of cases of asbestos-induced diseases in 1992–95 is a reflection of a screening campaign undertaken by FIOH in 1990–92.
The statistics presented in this publication differ somewhat from the statistics maintained by the Finnish Federation of Accident Insurance Institutions (FAII). In this publication, cases are included according to the date of diagnosis, whereas in the FAII statistics the reported cases of occupational disease are included according to the administrative date of occurrence as defined by the insurance legislation which may differ greatly from the actual date of diagnosis, e.g. in cases of asbestos-induced disease and cases of hearing loss. The present statistics also include occupational diseases of farmers which are not included in the FAII statistics.

In 2002, for every 10,000 employed workers, 20 cases of occupational disease were reported. The association between employment and the number of occupational diseases is complex, as some diseases take longer to develop than others. Workplace noise, for example, leads to a slow deterioration in hearing over a number of years, whereas a large proportion of the repetitive strain injuries and irritant contact dermatites develop rapidly. The cases reported in 2002 thus reflect the working conditions of the 1990s or the first years of the 2000s. Furthermore, some occupational diseases may not manifest themselves before the general retirement age (65 years), for example asbestosis and lung cancer. In spite of these problems, the incidence rates are calculated using the employment figures of the same year in which the case was reported. There has been a slight but steady decline in the incidence of occupational diseases per number of employed workers.
In 2002, 3009 cases of occupational diseases were reported in men and 1798 in women. The proportion of cases among women (37%) was about the same as in the previous years. Among both men and women, the highest number of cases was reported in the age category of 50–54 years. The mean age of new cases of occupational disease was 48 years for men and 42 years for women. This difference in the mean age is explained mainly by asbestos-induced diseases and noise-induced hearing loss, which are common in men and occur mainly in workers aged 50 years or more. Table 1 contains more detailed information on the age and gender distribution of occupational diseases.
The highest absolute numbers of occupational diseases occurred in public, social and personal services, in the construction industry, and in agriculture and forestry. The highest incidence rate of occupational diseases, however, occurred in the food, beverage and tobacco industry, and the manufacture of transport equipment, followed by agriculture and forestry, construction and the manufacture of wood and wood products. The most important occupational disease group in the food, beverage and tobacco industry was repetitive strain injuries (62% of all cases). In the manufacture of transport equipment 37% of the reported cases suffered from noise-induced hearing loss.

In agriculture and forestry, repetitive strain injuries accounted for 30%, allergic respiratory diseases for 26% and skin diseases for 21% of the reported occupational diseases. Repetitive monotonous work (29%) and animal epithelia (29%) were the most important causes of occupational disease in agriculture and forestry.

In construction, asbestos-induced diseases accounted for 37% of all reported cases. More detailed information on the causes of occupational diseases is given in Table 3, and on the distribution of occupational diseases across industries in Table 4 (see Appendices).
In general, a more accurate estimate of an individual's risk of occupational disease can be given according to his/her occupation, rather than according to the industry where he/she works. This is due to the fact that the industry-specific rates include also the white-collar workers from the same industry.

As in previous years, the highest incidence rate of occupational diseases was observed for work in the food and beverage industry. In this occupational category, there was a slight decrease both in the absolute number and the incidence rate of occupational diseases as compared to previous years.

In construction work, in agriculture, forestry and fishing, and in metal work, both the number of cases and the incidence rate of occupational diseases were high. In these industries, 600–700 cases were reported in 2002. In construction work the incidence rate increased by 13% and in agriculture, forestry and fishing by 8% from 2001. In metal work the incidence remained at the same level as in previous years.

Table 5 contains more detailed information on the occupational distribution of occupational diseases (see Appendices).
In this review, the reported occupational diseases are discussed in terms of six disease groups: 1) noise-induced hearing loss, 2) repetitive strain injuries, 3) allergic respiratory diseases, 4) skin diseases, 5) asbestos-induced diseases, and 6) other occupational diseases. In addition, information is presented on reported occupational cancers, which are almost entirely attributable to the inhalation of asbestos dust.

Repetitive strain injuries include, for example, tenosynovitis, peritendinitis, epicondylitis, bursitis, and mononeuropathy. Allergic respiratory diseases include asthma, allergic rhinitis, and allergic alveolitis. Skin diseases include, for example, irritant contact dermatitis, allergic contact dermatitis, infectious diseases of the skin, protein contact dermatitis, contact urticaria, as well as paronychia. Asbestos-induced diseases include, for example, pleural adhesions and calcifications, asbestosis, asbestos-induced lung cancer, as well as pleural and peritoneal mesothelioma. Other diseases include, for example, conjunctivitis, various types of intoxication, silicosis, epidemic nephritis, tuberculosis, and the hand-arm vibration syndrome.

The number of cases of epidemic nephritis (91) increased in agriculture (24 in 2001). The changes in the number of cases of this occupational disease usually follow the overall trends of epidemic nephritis in Finland. The annual numbers of cases of silicosis, tuberculosis and vibration syndrome are relatively low in Finland and have not shown any marked changes since the 1990s. Table 2 presents reported occupational diseases by diagnosis and gender.
Noise-induced hearing loss will typically develop within one or two decades from the beginning of exposure, but the time required is influenced by the level of noise, the daily duration of exposure, the frequency of the noise and the number of intense noise peaks. The cases of noise-induced hearing loss in 2002 are thus usually related to exposure in the 1980s. The number of reported cases has decreased in 1987–2002 from about 2000 annual cases to less than 1000 annual cases. Altogether 821 cases were reported in 2002. Over 90% of the cases in 2002 were reported among men, and the incidence of reported cases was highest in those aged 55 to 59 years.

Information on severity was provided only in 22% of the reported cases of noise-induced hearing loss. In over 50% of these, the severity was below 10%, i.e. below the cut-off level of financial reimbursement.

In 2002, the industry-specific incidence per current number of employed workers was highest in the manufacture of transport equipment and in the manufacture of pulp, paper and paper products. The highest occupation-specific incidence rates were observed in chemical processing and pulp and paper making work, and in metal, foundry and engineering work.
Most common industries in 2002

<table>
<thead>
<tr>
<th>Industry</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport equipment manufact.</td>
<td>42</td>
</tr>
<tr>
<td>Pulp, paper and paper products manufact.</td>
<td>58</td>
</tr>
<tr>
<td>Basic metals and fabricated metal products manufact.</td>
<td>75</td>
</tr>
<tr>
<td>Wood and wood products manufact.</td>
<td>35</td>
</tr>
<tr>
<td>Construction</td>
<td>160</td>
</tr>
<tr>
<td>Chemical and petroleum products manufact.</td>
<td>23</td>
</tr>
<tr>
<td>Machinery and equipment manufact.</td>
<td>52</td>
</tr>
<tr>
<td>Food, beverage and tobacco manufact.</td>
<td>30</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>3</td>
</tr>
<tr>
<td>Rubber and plastic products manufact.</td>
<td>11</td>
</tr>
<tr>
<td>All industries</td>
<td>821</td>
</tr>
</tbody>
</table>
Repetitive strain injuries peaked in 1990 at 4131 cases. Thereafter these diseases have more than halved to 1360 in 2002. In 1990 repetitive strain injuries comprised 45% of all new occupational diseases, and had dropped to 28% in 2002. Nevertheless, repetitive strain injuries still remained the largest occupational disease group in 2002.

The most common repetitive strain injury was tenosynovitis/peritendinitis. The proportion of ‘other and unspecified repetitive strain injuries’ has increased during the last years. The reason for this is the growing electronic transfer of data from insurance companies to FROD which has increased the number of inaccurately coded cases.

Of all repetitive strain injuries, 55% occurred in men and 45% in women. The relative proportion of men in this disease group is slightly larger than the proportion of men in the entire working population. The highest number of new cases occurred in the age group of 40–44 years for men, and in the age group of 45–49 years for women.

The incidence of repetitive strain injuries was 5.7 cases per 10 000 employed workers. In the food, beverage and tobacco industry the incidence was eight times the average: 49 cases/10 000 employed workers. The highest absolute numbers of new cases in this disease group were reported in the food, beverage and tobacco industry, in agriculture and forestry, and in construction.

Of the occupational categories, work in the food and beverage industry had by far the highest incidence rate (80 cases/10 000 employed). The incidence rate was 14 times the average. A high incidence rate was also reported in wood work (21 cases/10 000 employed) and in textile, sewing, shoe and leather work (18 cases/10 000 employed). The highest absolute numbers of new cases were reported in agriculture, forestry, and fishing (193 cases), in food and beverage manufacturing work (159 cases), in metal, foundry, and machine-shop work (159 cases) and in construction work (117 cases).
Most common industries in 2002

- Food, beverage and tobacco manufact. 214
- Textiles, clothing, leather and footwear manufact. 34
- Wood and wood products manufact. 54
- Agriculture and forestry 192
- Non-metallic mineral products manufact. 24
- Basic metals and fabricated metal products manufact. 73
- Construction 165
- Transport equipment manufact. 20
- Furniture manufact. 11
- Machinery and equipment manufact. 50
- All industries 1360

Most common occupations in 2002

- Food and beverage manufacturing work 159
- Wood work 40
- Textile, sewing, shoe and leather work 38
- Packing, warehousing and stevedoring work 80
- Agricultural, forestry and fishing work 193
- Printing and photographic work 18
- Metal, foundry and engineering work 159
- Chemical prosessing, pulp paper making work 33
- Building construction work 117
- Manufacturing work not elsewhere classified 39
- All occupations 1360
In 2002 a total of 518 cases of allergic respiratory disease were reported; this is about the same as in previous years. There were 302 reported cases among women and 216 among men. These were 304 cases of occupational asthma (275 in 2001), 151 cases of occupational allergic rhinitis (156 in 2001) and 55 cases of occupational allergic alveolitis (74 in 2001). In addition, 8 cases of organic dust toxic syndrome (ODTS) were reported. The number of cases of occupational allergic rhinitis has decreased clearly in 1997–2002. This decrease has partly been induced by inaccuracy of the received data on rhinitis in 2000–2002.

The incidence rate of occupational allergic respiratory diseases was 2.2/10,000 employed workers (2.2 in 2001). The most risk-prone occupations are found in the food and beverage industry, where 14 cases were reported for each 10,000 employed workers. Baker's asthma and rhinitis were primarily due to flours and baking additive enzymes. Work in agriculture and forestry came second with 13 cases/10,000 employed. The number of cases of occupational asthma in agriculture and forestry decreased to 58 (67 in 2001), and it was clearly less than the 150–200 annual cases reported in the early 1990s. This decrease is due to the diminished number of workers in these occupations, as well as to changes in type and average size of farms. The number of cases of occupational, allergic rhinitis in agriculture and forestry decreased from 74 in 2001 to 62 in 2002, and it was also lower than in the early 1990s. Occupations in the food and beverage industry and agriculture and forestry accounted for 37% of all reported cases of occupational respiratory diseases.
Most common industries in 2002

<table>
<thead>
<tr>
<th>Industry</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and forestry</td>
<td>158</td>
</tr>
<tr>
<td>Food, beverage and tobacco manufac.</td>
<td>36</td>
</tr>
<tr>
<td>Wood and wood products manufact.</td>
<td>20</td>
</tr>
<tr>
<td>Basic metals and fabricated metal products manufact.</td>
<td>18</td>
</tr>
<tr>
<td>Textiles, clothing, leather and footwear manufact.</td>
<td>5</td>
</tr>
<tr>
<td>Rubber and plastic products manufact.</td>
<td>5</td>
</tr>
<tr>
<td>Furniture manufacture</td>
<td>3</td>
</tr>
<tr>
<td>Public, social and personal services</td>
<td>148</td>
</tr>
<tr>
<td>Electrical products and optical equipment manufact.</td>
<td>13</td>
</tr>
<tr>
<td>Chemical and petroleum products manufact.</td>
<td>4</td>
</tr>
<tr>
<td>All industries</td>
<td>518</td>
</tr>
</tbody>
</table>

Most common occupations in 2002

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food and beverage manufacturing work</td>
<td>28</td>
</tr>
<tr>
<td>Agricultural, forestry and fishing work</td>
<td>162</td>
</tr>
<tr>
<td>Chemical processing, pulp and paper making work</td>
<td>12</td>
</tr>
<tr>
<td>Wood work</td>
<td>7</td>
</tr>
<tr>
<td>Manufacturing work not elsewhere classified</td>
<td>12</td>
</tr>
<tr>
<td>Textile, sewing, shoe and leather work</td>
<td>7</td>
</tr>
<tr>
<td>Metal, foundry and engineering work</td>
<td>36</td>
</tr>
<tr>
<td>Packing, warehousing and stevedoring work</td>
<td>13</td>
</tr>
<tr>
<td>Service work</td>
<td>58</td>
</tr>
<tr>
<td>Electrical, radio and television work</td>
<td>10</td>
</tr>
<tr>
<td>All occupations</td>
<td>518</td>
</tr>
</tbody>
</table>
The most common causative agents for occupational asthma were moulds or mould spores (26% of all cases) and flours, grains and animal feed (14%). There were 22 cases of asthma caused by exposure to animal epithelia and 19 cases caused by exposure to storage mites. Allergic rhinitis was most often caused by flours (40 cases), animal epithelia (39 cases), moulds (15 cases) and storage mites (18 cases). The causative agents of allergic respiratory diseases are listed in Table 6 (see Appendices).

Isocyanates caused 6 new cases of occupational asthma (3 in 2001). Chemicals used in hairdressing, mainly persulfates caused 7 cases of occupational asthma or rhinitis (6 in 2001).

In health care and nursing occupations, the natural rubber in protective gloves caused only one case of respiratory allergy (asthma).

There were 55 cases of allergic alveolitis, of which 38 were farmer’s lung (57 cases in 2001). The decrease was due to the dry weather conditions during summer 2001 and consequent low exposure to mouldy hay during the next winter. There were 15 cases of allergic alveolitis and 8 cases of ODTS, most of which were reported from work sites with water-damaged building materials.
Of all occupational diseases reported in 2002, 20% (965) were skin diseases. Of these, 330 were allergic contact dermatitis, 313 irritant contact dermatitis, 115 protein contact dermatitis or contact urticaria, 112 skin infections, and 95 other skin diseases. Other skin diseases included 41 unspecified cases of contact dermatitis, 4 paronychias, 1 oil acne, 28 other skin diseases including chemical burns, and 21 occupational skin diseases for which exact diagnoses were not reported.

There were 6% less cases of occupational skin diseases than in 2001. There were only minor changes in the relative importance of individual classes of dermatoses. The number of allergic contact dermatitis decreased (a reduction of 11 cases), the number of irritant contact dermatitis decreased by 15 cases, and the number of protein contact dermatitis or contact urticaria by 22 cases. The number of skin infections decreased by 12% (15 cases). The proportion of allergic skin diseases, i.e. allergic contact dermatitis, protein contact dermatitis and contact urticaria, remained stable, accounting for 46% of all skin diseases.

Women accounted for 60% of the reported cases. The average age of a new skin disease case was 39 years among men and 40 years among women. The mean age was considerably lower for cases with skin disease than for all cases of occupational disease (46 years). In their work, women are more often exposed to the common causes of occupational skin disease: cleansing agents, animal-derived substances, foodstuffs, rubber allergens, i.e. rubber chemicals and the natural rubber latex (NRL) proteins, and “wet” work.
A high incidence rate was found in agriculture and forestry, where skin diseases were caused by exposure to animal-derived substances (cow epithelium), flour, grain and fodder dust, cleansing agents, dermatophytes, rubber gloves, and wet and dirty working conditions. High incidence rates were also found in furniture manufacture, and in food, beverage and tobacco manufacture.

The highest occupation-specific risk occurred in the food and beverage manufacturing, where 16 cases were reported/10,000 employed, in manufacturing work not elsewhere classified (14 cases/10,000), and in agriculture, forestry and fishing (12 cases/10,000).

Itch mites causing skin infections were the most common cause of skin diseases (9%, 90 cases). Cleansing agents were still a common cause of occupational skin disease, and they accounted for 6% (59 cases) of all skin diseases. These were nearly all cases of irritant contact dermatitis. Of the skin diseases caused by exposure to rubber chemicals, the majority were allergic contact dermatitis due to rubber gloves. The most common plastic chemicals causing occupational allergic skin diseases were epoxy resins and epoxy paints and glues (28 cases), and acrylates and metacrylates (23 cases).

Animal-related skin diseases were mostly caused by cow epithelium. Both cow-induced dermatoses (48 cases), flours, grains and fodders (33 cases) and NRL-induced dermatoses (11 cases) were primarily protein contact dermatitis or contact urticaria. Protective gloves and other products made of NRL can also cause delayed type allergic contact dermatitis. In such cases the allergenic agents are usually rubber chemicals. The causative agents of the skin diseases are listed in Table 7 (see Appendices).
Asbestos-induced diseases

The number of asbestos-induced diseases increased by 2% from 2001 (588 cases, 579 cases in 2001). There were 346 cases of benign pleural disease, mainly cases of bilateral pleural plaques, 88 cases of asbestosis, 132 cases of asbestos-related malignancies and 22 other asbestos-induced diseases. The annual number of benign pleural diseases has returned to the level preceding a national radiographic screening campaign among nearly 20,000 construction workers undertaken in 1990–92, with further clinical examinations still going on in 1993 and 1994. The numbers of cases of notified asbestos-related malignancies remained at about the same level as in 1995–2001 (see the figure above).

The highest number of asbestos-induced diseases was reported in construction, but numerous cases were also reported in relation to the manufacture of transport vehicles (including shipbuilding), and some industries where exposure to asbestos used to be frequent among maintenance workers, e.g. in the pulp and paper industry, and paper product manufacture, manufacture of basic metals, as well as in electrical, gas and water supply work. The most common occupations were building construction work and metal, foundry and engineering work, which accounted for more than half of the cases. In the statistics, the occupation and industry of cases with asbestos-induced disease refer to the occupation and industry at the time of exposure.

Asbestos-induced diseases have a long latency period, and the heaviest exposure occurred before latter part of the 1970s. Most of the disease cases are therefore seen in the oldest age categories.
### Most common industries in 2002

<table>
<thead>
<tr>
<th>Industry</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>257</td>
</tr>
<tr>
<td>Transport equipment manufact.</td>
<td>38</td>
</tr>
<tr>
<td>Pulp, paper and paper products manufact.</td>
<td>40</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>5</td>
</tr>
<tr>
<td>Electricity, gas and water supply</td>
<td>17</td>
</tr>
<tr>
<td>Non-metallic mineral products manufact.</td>
<td>11</td>
</tr>
<tr>
<td>Basic metals and fabricated metal products manufact.</td>
<td>26</td>
</tr>
<tr>
<td>Machinery and equipment manufact.</td>
<td>16</td>
</tr>
<tr>
<td>Financial intermediation, insurance and business services</td>
<td>57</td>
</tr>
<tr>
<td>Chemical and petroleum products manufact.</td>
<td>4</td>
</tr>
<tr>
<td>All industries</td>
<td>588</td>
</tr>
</tbody>
</table>

### Most common occupations in 2002

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building construction work</td>
<td>252</td>
</tr>
<tr>
<td>Electrical, radio and television work</td>
<td>43</td>
</tr>
<tr>
<td>Metal, foundry and engineering work</td>
<td>89</td>
</tr>
<tr>
<td>Manufacturing work not elsewhere classified</td>
<td>19</td>
</tr>
<tr>
<td>Chemical prosessing, pulp and paper making work</td>
<td>14</td>
</tr>
<tr>
<td>Construction and industrial equipment operation work</td>
<td>14</td>
</tr>
<tr>
<td>Printing and photographic work</td>
<td>3</td>
</tr>
<tr>
<td>Transport and communication work</td>
<td>19</td>
</tr>
<tr>
<td>Service work</td>
<td>46</td>
</tr>
<tr>
<td>Packing, warehousing and stevedoring work</td>
<td>6</td>
</tr>
<tr>
<td>All occupations</td>
<td>588</td>
</tr>
</tbody>
</table>
Altogether 135 cases of occupational cancer were reported in 2002, i.e. 25% more than in 2001. More than 60% of the patients were men above 60 years of age, but the youngest patients with an occupational mesothelioma were less than 50 years of age. Altogether 4 cases of occupational cancer were reported in women.

There were 48 cases of occupational mesothelioma in 2002. The reason for the 50% increase from 2001 may be a series of articles on diagnostic and exposure assessment instructions published in the Finnish medical journals. In all of the mesothelioma cases, asbestos was reported as the causative agent. Altogether 84 cases of occupational lung cancer were reported in 2002; all of these were reported to be asbestos-related. A peak in the annual number of reported cases of lung cancer occurred in 1993, after the publication of a guidebook on exposure assessment of asbestos-related cancers, which was distributed to pulmonary hospitals at the end of 1992. Many cases diagnosed already in 1991 or 1992 were probably reported as occupational diseases in 1993. Thereafter the annual number of reported cases of lung cancer has remained at about the same level. Very few cases of cancer other than lung cancer or mesothelioma are reported as occupational cancers in Finland. In 2002, one case of myeloid leukemia (due to exposure to an unspecified chemical), multiple myeloma (an unspecified chemical) and thyroid tumour (beta radiation) were reported.

The compensation of asbestos-induced cancers in Finland is based on a relative risk of > 2. Mesothelioma is compensated if any exposure to asbestos at work can be verified. Lung cancer is compensated (i) in patients with asbestosis, (ii) in insulators and asbestos sprayers, and (iii) in patients with > 10 years of employment in other risk jobs (e.g. construction), the compensation of lung cancer is based on a detailed individual exposure assessment.
8 Occupational Diseases in 2002 by EU Classification

On May 22, 1990, the Commission of the European Communities published a recommendation on occupational diseases (90/326/EEC) which included, among others, a recommendation for the compilation of statistics on occupational diseases in the member states, and a list called Annex 1 of the European Schedule of Occupational Diseases. Eurostat has collected pilot data concerning 31 occupational disease items and cases recognised in 1995. The analysis of the pilot data revealed several problems that reduce the comparability of statistical data from national occupational disease recognition systems. These include differences in the coverage of the national workforce, actual recognition criteria, recognition of mild cases and inclusion of specific diagnoses into the items of the European Schedule of Occupational Diseases (see Karjalainen and Virtanen, Eurostat Working Papers, Population and social conditions 3/1999/E/n:o 2).

In the above figure, which presents the occupational diseases reported in Finland during 2002, classes 1–5 have been drawn from Annex 1 the European Schedule of Occupational Diseases. The patterns on the bars correspond to the disease groups referred to throughout this review. Table 8 gives more detailed information on the diseases and causes according to classes 1–5.

Of the occupational diseases reported in Finland, 3793 (79%) could be classified according to the above-mentioned European recommendation. Asbestos-induced benign pleural diseases account for the largest number of incompatible diagnoses (346 cases), although some member states include these conditions under the general item of asbestosis. Many diseases found on the European list are actually quite rare nowadays in Finland. No cases were reported in 2002 for about half of the occupational diseases mentioned on the European list. The European Commission has recently updated the above-mentioned recommendation and the annexed lists (3297/2003/EC).
The Finnish Register of Occupational Diseases was established in 1964. Information on occupational diseases diagnosed by Finnish physicians is obtained from the local labour protection authorities and insurance companies. Unlike in insurance statistics, the cases are recorded according to the year of reporting and not according to the insurance technical date of occurrence, which may differ several years in diseases with a long latency time. In addition to cases diagnosed in wage-earners, the statistics also cover farmers, who are recorded in separate statistics in the insurance system.

In 2002 a total of 4807 cases were reported. This figure is 2% less than in 2001. The annual incidence rate of the reported occupational diseases was 20 cases per 10,000 employed workers in 2002. The numbers of cases are given by diagnosis in Table 2 (p. 29) and according to the European list in Table 8 (p. 45).

The most common occupational diseases are still repetitive strain injuries, although their annual incidence has fallen since 1990. A total of 1360 cases were reported in 2002. This is 9% less than in 2001. The incidence rate was 5.7 cases per 10,000 employed workers. The highest incidence rate occurred in food-processing work, where 49 cases per 10,000 employed workers were reported.

There were 518 cases of allergic respiratory diseases, about the same amount as in 2001. The numbers of reported cases of asthma (n = 304) have remained at the same level and and those of rhinitis (n = 151) have decreased during the latest years. There were 55 cases of allergic alveolitis, of which 38 were farmer's lung (57 cases in 2001). The decrease was due to the dry weather conditions during summer 2001 and consequent low exposure to mouldy hay during the next winter. The incidence rate of reported allergic respiratory diseases was the highest in agriculture and food-processing work, which accounted for 37% of all cases. Animal epithelia, flour dust and storage mites caused 40% of the cases of asthma and allergic rhinitis.

Occupational skin diseases totalled 965 cases in 2002, i.e. 6% less than the year before. The incidence rate was highest in food-processing work. Irritant contact dermatitis was most often caused by wet work and detergents (32%), allergic contact dermatitis by nickel (12%) and protein contact dermatitis or contact urticaria by animal epithelia, flours and natural rubber (Latex) (43%, 23% and 8%, respectively).

The cases of noise-induced hearing loss numbered 821, which is 10% more than in 2001. The incidence rate was highest in transfer equipment manufacture.

In 2002 there were 588 new cases of asbestos-related diseases, 48 cases of mesothelioma, 84 cases of lung cancer, 88 cases of asbestosis, and 346 cases of pleural plaques.

Further information can be obtained from Dr. Timo Kauppinen, Finnish Institute of Occupational Health, Topeliuksenkatu 41 a A, FIN-00250 Helsinki, Finland (tel.: +358-9-47471, fax: +358-9-2414 634, email: timo.kauppinen@fioh.fi).

Summary

The Finnish Register of Occupational Diseases was established in 1964. Information on occupational diseases diagnosed by Finnish physicians is obtained from the local labour protection authorities and insurance companies. Unlike in insurance statistics, the cases are recorded according to the year of reporting and not according to the insurance technical date of occurrence, which may differ several years in diseases with a long latency time. In addition to cases diagnosed in wage-earners, the statistics also cover farmers, who are recorded in separate statistics in the insurance system.

In 2002 a total of 4807 cases were reported. This figure is 2% less than in 2001. The annual incidence rate of the reported occupational diseases was 20 cases per 10,000 employed workers in 2002. The numbers of cases are given by diagnosis in Table 2 (p. 29) and according to the European list in Table 8 (p. 45).

The most common occupational diseases are still repetitive strain injuries, although their annual incidence has fallen since 1990. A total of 1360 cases were reported in 2002. This is 9% less than in 2001. The incidence rate was 5.7 cases per 10,000 employed workers. The highest incidence rate occurred in food-processing work, where 49 cases per 10,000 employed workers were reported.

There were 518 cases of allergic respiratory diseases, about the same amount as in 2001. The numbers of reported cases of asthma (n = 304) have remained at the same level and and those of rhinitis (n = 151) have decreased during the latest years. There were 55 cases of allergic alveolitis, of which 38 were farmer's lung (57 cases in 2001). The decrease was due to the dry weather conditions during summer 2001 and consequent low exposure to mouldy hay during the next winter. The incidence rate of reported allergic respiratory diseases was the highest in agriculture and food-processing work, which accounted for 37% of all cases. Animal epithelia, flour dust and storage mites caused 40% of the cases of asthma and allergic rhinitis.

Occupational skin diseases totalled 965 cases in 2002, i.e. 6% less than the year before. The incidence rate was highest in food-processing work. Irritant contact dermatitis was most often caused by wet work and detergents (32%), allergic contact dermatitis by nickel (12%) and protein contact dermatitis or contact urticaria by animal epithelia, flours and natural rubber (Latex) (43%, 23% and 8%, respectively).

The cases of noise-induced hearing loss numbered 821, which is 10% more than in 2001. The incidence rate was highest in transfer equipment manufacture.

In 2002 there were 588 new cases of asbestos-related diseases, 48 cases of mesothelioma, 84 cases of lung cancer, 88 cases of asbestosis, and 346 cases of pleural plaques.

Further information can be obtained from Dr. Timo Kauppinen, Finnish Institute of Occupational Health, Topeliuksenkatu 41 a A, FIN-00250 Helsinki, Finland (tel.: +358-9-47471, fax: +358-9-2414 634, email: timo.kauppinen@fioh.fi).
Tables on occupational diseases in 2002

1  Diseases by age and gender
2  Diagnoses by gender
3  Causes by gender
4  Diseases by industry
5  Diseases by occupation
6  Allergic respiratory diseases: cause and diagnosis
7  Skin diseases: cause and diagnosis
8  Diseases by EU classification and gender
<table>
<thead>
<tr>
<th>Age</th>
<th>Hearing loss</th>
<th>Repetitive strain injuries</th>
<th>Allergic respiratory diseases</th>
<th>Skin disorders</th>
<th>Asbestos-induced diseases</th>
<th>Others</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 - 19</td>
<td>-</td>
<td>20</td>
<td>3</td>
<td>12</td>
<td>-</td>
<td>14</td>
<td>49</td>
</tr>
<tr>
<td>20 - 24</td>
<td>2</td>
<td>89</td>
<td>20</td>
<td>82</td>
<td>-</td>
<td>37</td>
<td>230</td>
</tr>
<tr>
<td>25 - 29</td>
<td>9</td>
<td>112</td>
<td>58</td>
<td>98</td>
<td>1</td>
<td>42</td>
<td>320</td>
</tr>
<tr>
<td>30 - 34</td>
<td>15</td>
<td>150</td>
<td>68</td>
<td>129</td>
<td>-</td>
<td>71</td>
<td>433</td>
</tr>
<tr>
<td>35 - 39</td>
<td>47</td>
<td>212</td>
<td>74</td>
<td>132</td>
<td>1</td>
<td>72</td>
<td>538</td>
</tr>
<tr>
<td>40 - 44</td>
<td>82</td>
<td>241</td>
<td>79</td>
<td>159</td>
<td>5</td>
<td>68</td>
<td>634</td>
</tr>
<tr>
<td>45 - 49</td>
<td>124</td>
<td>233</td>
<td>73</td>
<td>134</td>
<td>21</td>
<td>84</td>
<td>669</td>
</tr>
<tr>
<td>50 - 54</td>
<td>189</td>
<td>201</td>
<td>79</td>
<td>141</td>
<td>78</td>
<td>92</td>
<td>780</td>
</tr>
<tr>
<td>55 - 59</td>
<td>210</td>
<td>88</td>
<td>52</td>
<td>68</td>
<td>109</td>
<td>51</td>
<td>578</td>
</tr>
<tr>
<td>60 - 64</td>
<td>101</td>
<td>13</td>
<td>11</td>
<td>10</td>
<td>98</td>
<td>16</td>
<td>249</td>
</tr>
<tr>
<td>65+</td>
<td>42</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>275</td>
<td>8</td>
<td>327</td>
</tr>
<tr>
<td>Total</td>
<td>821</td>
<td>1360</td>
<td>518</td>
<td>965</td>
<td>588</td>
<td>555</td>
<td>4807</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Hearing loss</th>
<th>Repetitive strain injuries</th>
<th>Allergic respiratory diseases</th>
<th>Skin disorders</th>
<th>Asbestos-induced diseases</th>
<th>Others</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 - 19</td>
<td>-</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>-</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>20 - 24</td>
<td>1</td>
<td>45</td>
<td>8</td>
<td>33</td>
<td>-</td>
<td>27</td>
<td>114</td>
</tr>
<tr>
<td>25 - 29</td>
<td>7</td>
<td>62</td>
<td>27</td>
<td>46</td>
<td>1</td>
<td>23</td>
<td>166</td>
</tr>
<tr>
<td>30 - 34</td>
<td>12</td>
<td>107</td>
<td>31</td>
<td>58</td>
<td>-</td>
<td>37</td>
<td>245</td>
</tr>
<tr>
<td>35 - 39</td>
<td>47</td>
<td>121</td>
<td>29</td>
<td>58</td>
<td>1</td>
<td>43</td>
<td>299</td>
</tr>
<tr>
<td>40 - 44</td>
<td>78</td>
<td>139</td>
<td>38</td>
<td>50</td>
<td>5</td>
<td>32</td>
<td>342</td>
</tr>
<tr>
<td>45 - 49</td>
<td>117</td>
<td>119</td>
<td>28</td>
<td>58</td>
<td>21</td>
<td>54</td>
<td>397</td>
</tr>
<tr>
<td>50 - 54</td>
<td>177</td>
<td>95</td>
<td>29</td>
<td>59</td>
<td>76</td>
<td>46</td>
<td>482</td>
</tr>
<tr>
<td>55 - 59</td>
<td>192</td>
<td>42</td>
<td>19</td>
<td>22</td>
<td>109</td>
<td>29</td>
<td>413</td>
</tr>
<tr>
<td>60 - 64</td>
<td>96</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>97</td>
<td>11</td>
<td>215</td>
</tr>
<tr>
<td>65+</td>
<td>38</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>266</td>
<td>7</td>
<td>312</td>
</tr>
<tr>
<td>Total</td>
<td>765</td>
<td>743</td>
<td>216</td>
<td>388</td>
<td>576</td>
<td>321</td>
<td>3009</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Hearing loss</th>
<th>Repetitive strain injuries</th>
<th>Allergic respiratory diseases</th>
<th>Skin disorders</th>
<th>Asbestos-induced diseases</th>
<th>Others</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 - 19</td>
<td>-</td>
<td>13</td>
<td>-</td>
<td>10</td>
<td>-</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>20 - 24</td>
<td>1</td>
<td>44</td>
<td>12</td>
<td>49</td>
<td>-</td>
<td>10</td>
<td>116</td>
</tr>
<tr>
<td>25 - 29</td>
<td>2</td>
<td>50</td>
<td>31</td>
<td>52</td>
<td>-</td>
<td>19</td>
<td>154</td>
</tr>
<tr>
<td>30 - 34</td>
<td>3</td>
<td>43</td>
<td>37</td>
<td>71</td>
<td>-</td>
<td>34</td>
<td>188</td>
</tr>
<tr>
<td>35 - 39</td>
<td>-</td>
<td>91</td>
<td>45</td>
<td>74</td>
<td>-</td>
<td>29</td>
<td>239</td>
</tr>
<tr>
<td>40 - 44</td>
<td>4</td>
<td>102</td>
<td>41</td>
<td>109</td>
<td>-</td>
<td>36</td>
<td>292</td>
</tr>
<tr>
<td>45 - 49</td>
<td>7</td>
<td>114</td>
<td>45</td>
<td>76</td>
<td>-</td>
<td>30</td>
<td>272</td>
</tr>
<tr>
<td>50 - 54</td>
<td>12</td>
<td>106</td>
<td>50</td>
<td>82</td>
<td>2</td>
<td>46</td>
<td>298</td>
</tr>
<tr>
<td>55 - 59</td>
<td>18</td>
<td>46</td>
<td>33</td>
<td>46</td>
<td>-</td>
<td>22</td>
<td>165</td>
</tr>
<tr>
<td>60 - 64</td>
<td>5</td>
<td>7</td>
<td>8</td>
<td>8</td>
<td>1</td>
<td>5</td>
<td>34</td>
</tr>
<tr>
<td>65+</td>
<td>4</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>9</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>56</td>
<td>617</td>
<td>302</td>
<td>577</td>
<td>12</td>
<td>234</td>
<td>1798</td>
</tr>
</tbody>
</table>
**Table 2**  
Diagnoses\(^1\) by gender

<table>
<thead>
<tr>
<th>Disease</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Infectious and parasitic diseases</strong></td>
<td>91</td>
<td>139</td>
<td>230</td>
</tr>
<tr>
<td>Infectious and parasitic diseases</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epidemic nephritis</td>
<td>75</td>
<td>16</td>
<td>91</td>
</tr>
<tr>
<td>Mycosis</td>
<td>1</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Scabies</td>
<td>7</td>
<td>83</td>
<td>90</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>3</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Others</td>
<td>5</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td><strong>Neoplasms</strong></td>
<td>133</td>
<td>4</td>
<td>137</td>
</tr>
<tr>
<td>Bronchial cancer</td>
<td>83</td>
<td>1</td>
<td>84</td>
</tr>
<tr>
<td>Mesothelioma</td>
<td>46</td>
<td>2</td>
<td>48</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td><strong>Mental and behavioural disorders</strong></td>
<td>5</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Mental and behavioural disorders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Diseases of the nervous system</strong></td>
<td>37</td>
<td>37</td>
<td>74</td>
</tr>
<tr>
<td>Mononeuropathy, upper extremity</td>
<td>18</td>
<td>31</td>
<td>49</td>
</tr>
<tr>
<td>Mononeuropathy, lower extremity</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Toxic encephalopathy</td>
<td>9</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Others</td>
<td>7</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td><strong>Diseases of the eye</strong></td>
<td>69</td>
<td>11</td>
<td>80</td>
</tr>
<tr>
<td>Conjunctivitis</td>
<td>7</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>Keratoconjunctivitis caused by UV-light</td>
<td>61</td>
<td>1</td>
<td>62</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td><strong>Diseases of the ear</strong></td>
<td>760</td>
<td>56</td>
<td>816</td>
</tr>
<tr>
<td>Noise-induced hearing loss</td>
<td>758</td>
<td>54</td>
<td>812</td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>Diseases of the circulatory system</strong></td>
<td>11</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Hand and arm vibration syndrome</td>
<td>11</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td><strong>Diseases of the respiratory system</strong></td>
<td>716</td>
<td>435</td>
<td>1151</td>
</tr>
<tr>
<td>Asthma</td>
<td>135</td>
<td>172</td>
<td>307</td>
</tr>
<tr>
<td>Allergic rhinitis</td>
<td>58</td>
<td>96</td>
<td>154</td>
</tr>
<tr>
<td>Allergic alveolitis</td>
<td>23</td>
<td>32</td>
<td>55</td>
</tr>
<tr>
<td>Organic dust toxic syndrome</td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Asbestosis</td>
<td>86</td>
<td>2</td>
<td>88</td>
</tr>
<tr>
<td>Pleural plaques and adhesions</td>
<td>340</td>
<td>6</td>
<td>346</td>
</tr>
<tr>
<td>Silicosis</td>
<td>6</td>
<td>-</td>
<td>6</td>
</tr>
<tr>
<td>Other irritant and hypersensitivity symptoms</td>
<td>24</td>
<td>85</td>
<td>109</td>
</tr>
<tr>
<td>of the upper respiratory tract</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>40</td>
<td>38</td>
<td>78</td>
</tr>
<tr>
<td><strong>Diseases of the gastrointestinal organs</strong></td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
</tbody>
</table>

\(^1\)According to ICD-10
<table>
<thead>
<tr>
<th>Disease</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diseases of the skin and subcutaneous tissue*</td>
<td>368</td>
<td>469</td>
<td>837</td>
</tr>
<tr>
<td>Diseases of the musculoskeletal system</td>
<td>705</td>
<td>582</td>
<td>1287</td>
</tr>
<tr>
<td>Epicondylitis</td>
<td>278</td>
<td>260</td>
<td>538</td>
</tr>
<tr>
<td>Tenosynovitis, peritendinitis</td>
<td>162</td>
<td>116</td>
<td>278</td>
</tr>
<tr>
<td>Bursitis</td>
<td>20</td>
<td>1</td>
<td>21</td>
</tr>
<tr>
<td>Others</td>
<td>245</td>
<td>205</td>
<td>450</td>
</tr>
<tr>
<td>Injury and poisoning</td>
<td>29</td>
<td>5</td>
<td>34</td>
</tr>
<tr>
<td>Poisoning</td>
<td>11</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Others</td>
<td>18</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>Others</td>
<td>84</td>
<td>56</td>
<td>140</td>
</tr>
<tr>
<td>Total</td>
<td>3009</td>
<td>1798</td>
<td>4807</td>
</tr>
</tbody>
</table>

*Skin infections and skin injuries are included under other headings. The numbers of cases in this and other tables may differ slightly due to different case definitions applied.
## Table 3  Causes by gender

<table>
<thead>
<tr>
<th>Cause</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical factors</strong></td>
<td>846</td>
<td>65</td>
<td>911</td>
</tr>
<tr>
<td>Noise</td>
<td>765</td>
<td>56</td>
<td>821</td>
</tr>
<tr>
<td>Vibration</td>
<td>12</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Overpressure</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Temperature</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Humidity</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Warm moisture</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Ionizing radiation</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Non-ionizing radiation</td>
<td>63</td>
<td>3</td>
<td>66</td>
</tr>
<tr>
<td><strong>Chemical agents</strong></td>
<td>1224</td>
<td>710</td>
<td>1934</td>
</tr>
<tr>
<td>Aromatic hydrocarbons</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Monohydric alcohols</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Dihydric alcohols (glycols)</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Phenols and phenolates (not chlorophenols)</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Chlorophenols and chlorophenolates</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ethers of aromatic alcohols</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Epoxides</td>
<td>6</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Aliphatic aldehydes</td>
<td>7</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td>Aldehydes (not specified)</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Aliphatic ketones</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Quinones</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Aliphatic carboxylic acids</td>
<td>4</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Percarboxylic acids and acyl peroxides</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Carboxylic acid anhydrides</td>
<td>8</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Esters of aliphatic carboxylic acids (e.g. acrylates)</td>
<td>15</td>
<td>13</td>
<td>28</td>
</tr>
<tr>
<td>Hydroperoxides and peroxides</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Amines</td>
<td>4</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Amides (e.g. thiuram sulfides)</td>
<td>3</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>Organic cyanides and nitriles (cyano compounds)</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Isocyanates</td>
<td>8</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Hydrazine, azo, diazo, and diazonium compounds</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Heterocyclic compounds (oxygen in ring)</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Heterocyclic compounds (nitrogen in ring)</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Heterocyclic compounds (sulfur in ring)</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Polysaccharides</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Organic zinc compounds</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Carbon monoxide and carbon dioxide</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Inorganic gases containing sulfur</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Inorganic gases containing chlorine</td>
<td>3</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Inorganic acids</td>
<td>3</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Inorganic bases</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Boron and its compounds</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Cause</td>
<td>Men</td>
<td>Women</td>
<td>Total</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-----</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>Arsenic and its compounds</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Sulfur, carbon disulfide and ammonium sulfate derivatives</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Tin, lead and their compounds</td>
<td>5</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Copper and platinum metals and their compounds</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Zinc, cadmium, mercury and their compounds</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Chromium group metals and their compounds</td>
<td>15</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>Cobalt, nickel and their compounds</td>
<td>16</td>
<td>27</td>
<td>43</td>
</tr>
<tr>
<td>Metals and metallic compounds (not specified)</td>
<td>4</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Crude oil based organic solvent mixtures</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Organic solvent mixtures (not specified)</td>
<td>35</td>
<td>7</td>
<td>42</td>
</tr>
<tr>
<td>Crude oil based fuels</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Oils and lubricants</td>
<td>47</td>
<td>3</td>
<td>50</td>
</tr>
<tr>
<td>Synthetic resins and plastics</td>
<td>23</td>
<td>17</td>
<td>40</td>
</tr>
<tr>
<td>Natural rubber (latex)</td>
<td>1</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Natural resins, balsams and their derivatives (except latex)</td>
<td>11</td>
<td>14</td>
<td>25</td>
</tr>
<tr>
<td>Resins, plastics and their derivatives (not specified)</td>
<td>3</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Paints</td>
<td>7</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Varnishes</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Synthetic glues</td>
<td>6</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Natural glues</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Glues (not specified)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Rubbers</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Printing inks</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Fur dyes</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Hair dyes</td>
<td>-</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Rubber chemicals</td>
<td>15</td>
<td>23</td>
<td>38</td>
</tr>
<tr>
<td>Detergents</td>
<td>14</td>
<td>48</td>
<td>62</td>
</tr>
<tr>
<td>Disinfectants</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Cosmetics</td>
<td>1</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>Perfumes and aromatic substances</td>
<td>-</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Photographic chemicals</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Preservatives and antimicrobial agents</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Other known substances classified according to their use</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Silicon dioxides</td>
<td>7</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>Asbestos (all types)</td>
<td>576</td>
<td>12</td>
<td>588</td>
</tr>
<tr>
<td>Talc</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Synthetic mineral fibers</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Sulfate minerals</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Cement, concrete</td>
<td>15</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>Other known minerals and synthetic fibers</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Textiles</td>
<td>-</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Flours, grains and fodders</td>
<td>44</td>
<td>79</td>
<td>123</td>
</tr>
<tr>
<td>Wood (all species)</td>
<td>23</td>
<td>4</td>
<td>27</td>
</tr>
<tr>
<td>Cause</td>
<td>Men</td>
<td>Women</td>
<td>Total</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>-----</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td><strong>Plants</strong></td>
<td>4</td>
<td>45</td>
<td>49</td>
</tr>
<tr>
<td>Plant-derived dusts and substances</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td><strong>Animal epithelia, hairs or secretions/excretions</strong></td>
<td>42</td>
<td>74</td>
<td>116</td>
</tr>
<tr>
<td>Other animal-derived dusts or substances</td>
<td>6</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td><strong>Enzymes</strong></td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Organic materials, not listed elsewhere (not specified)</td>
<td>35</td>
<td>37</td>
<td>72</td>
</tr>
<tr>
<td><strong>Sprays, fumes, dusts and smoke (mixtures)</strong></td>
<td>22</td>
<td>4</td>
<td>26</td>
</tr>
<tr>
<td><strong>Wet work</strong></td>
<td>9</td>
<td>35</td>
<td>44</td>
</tr>
<tr>
<td>Dirty work</td>
<td>17</td>
<td>13</td>
<td>30</td>
</tr>
<tr>
<td>Handling of foodstuffs</td>
<td>8</td>
<td>13</td>
<td>21</td>
</tr>
<tr>
<td>Other chemical agents (not specified)</td>
<td>100</td>
<td>75</td>
<td>175</td>
</tr>
<tr>
<td><strong>Biological agents</strong></td>
<td>181</td>
<td>377</td>
<td>558</td>
</tr>
<tr>
<td>Yeasts</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Molds</td>
<td>54</td>
<td>210</td>
<td>264</td>
</tr>
<tr>
<td>Dermatophytes</td>
<td>1</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>Eubacteria</td>
<td>1</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Actinomycetes</td>
<td>4</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Other known bacteria</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Bacteria (not specified)</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Herpesviruses</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Poxviruses</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other known viruses</td>
<td>76</td>
<td>17</td>
<td>93</td>
</tr>
<tr>
<td>Mites</td>
<td>39</td>
<td>94</td>
<td>133</td>
</tr>
<tr>
<td>Insects</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Intestinal parasites</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Toxins and toxoids</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Other biological agents (not specified)</td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td><strong>Physical and psychophysical loading factors</strong></td>
<td>748</td>
<td>625</td>
<td>1373</td>
</tr>
<tr>
<td>Static muscular load due to work postures</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Repetitive work</td>
<td>711</td>
<td>605</td>
<td>1316</td>
</tr>
<tr>
<td>Nonphysiological working postures</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Nonphysiological compression or stretching</td>
<td>21</td>
<td>2</td>
<td>23</td>
</tr>
<tr>
<td>Mechanical friction of the skin</td>
<td>5</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Other known physical and mechanical loading factors</td>
<td>2</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Physical and mechanical loading factors (not specified)</td>
<td>6</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Other known psychophysical loading factors</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Psychosocial factors</strong></td>
<td>-</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Continuous haste</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other known psychosocial stressors</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Psychosocial stressors (not specified)</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Unknown factors</strong></td>
<td>10</td>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3009</td>
<td>1798</td>
<td>4807</td>
</tr>
<tr>
<td>Industry</td>
<td>Hearing loss</td>
<td>Repetitive strain injuries</td>
<td>Allergic respiratory diseases</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>--------------</td>
<td>---------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Agriculture, hunting and forestry</td>
<td>54</td>
<td>188</td>
<td>158</td>
</tr>
<tr>
<td>Agriculture, hunting and related service activities</td>
<td>31</td>
<td>181</td>
<td>158</td>
</tr>
<tr>
<td>Forestry, logging and related service activities</td>
<td>23</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Fishing</td>
<td>-</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>Fishing, operation of fish hatcheries and fish farms; service activities</td>
<td>-</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>3</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Mining of coal and lignite; extraction of peat</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mining of metal ores</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other mining and quarrying</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>360</td>
<td>581</td>
<td>130</td>
</tr>
<tr>
<td>Manufacture of food products and beverages</td>
<td>30</td>
<td>214</td>
<td>36</td>
</tr>
<tr>
<td>Manufacture of textiles</td>
<td>2</td>
<td>12</td>
<td>-</td>
</tr>
<tr>
<td>Manufacture of wearing apparel; dressing and dyeing of fur</td>
<td>1</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear</td>
<td>-</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials</td>
<td>35</td>
<td>54</td>
<td>20</td>
</tr>
<tr>
<td>Manufacture of pulp, paper and paper products</td>
<td>58</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>Publishing, printing and reproduction of recorded media</td>
<td>10</td>
<td>26</td>
<td>4</td>
</tr>
<tr>
<td>Manufacture of coke, refined petroleum products and nuclear fuel</td>
<td>18</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Manufacture of chemicals and chemical products</td>
<td>5</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Manufacture of rubber and plastic products</td>
<td>11</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>Industry</td>
<td>Hearing loss</td>
<td>Repetitive strain injuries</td>
<td>Allergic respiratory diseases</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>--------------</td>
<td>----------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Manufacture of other non-metallic mineral products</td>
<td>7</td>
<td>24</td>
<td>3</td>
</tr>
<tr>
<td>Manufacture of basic metals</td>
<td>23</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>Manufacture of fabricated metal products, except machinery and equipment</td>
<td>52</td>
<td>59</td>
<td>13</td>
</tr>
<tr>
<td>Manufacture of machinery and equipment n.e.c.</td>
<td>52</td>
<td>50</td>
<td>11</td>
</tr>
<tr>
<td>Manufacture of office machinery and computers</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Manufacture of electrical machinery and apparatus n.e.c.</td>
<td>4</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td>Manufacture of radio, television and communication equipment and apparatus</td>
<td>-</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>Manufacture of medical, precision and optical instruments, watches and clocks</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Manufacture of motor vehicles, trailers and semi-trailers</td>
<td>1</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Manufacture of other transport equipment</td>
<td>42</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Manufacture of furniture; manufacturing n.e.c.</td>
<td>6</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>Electricity, gas and water supply</td>
<td>9</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Electricity, gas, steam and hot water supply</td>
<td>8</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Collection, purification and distribution of water</td>
<td>1</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Construction</td>
<td>160</td>
<td>165</td>
<td>12</td>
</tr>
<tr>
<td>Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods</td>
<td>26</td>
<td>81</td>
<td>22</td>
</tr>
<tr>
<td>Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel</td>
<td>20</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>Wholesale trade and commission trade, except of motor vehicles and motorcycles</td>
<td>3</td>
<td>32</td>
<td>3</td>
</tr>
<tr>
<td>Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods</td>
<td>3</td>
<td>35</td>
<td>13</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>3</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Industry</td>
<td>Hearing loss</td>
<td>Repetitive strain injuries</td>
<td>Allergic respiratory diseases</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>--------------</td>
<td>--------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td><strong>Transport, storage and communication</strong></td>
<td>50</td>
<td>52</td>
<td>12</td>
</tr>
<tr>
<td>Land transport; transport via</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pipelines</td>
<td>23</td>
<td>26</td>
<td>5</td>
</tr>
<tr>
<td>Water transport</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Air transport</td>
<td>3</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Supporting and auxiliary transport activities; activities of travel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>agencies</td>
<td>15</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Post and telecommunications</td>
<td>6</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td><strong>Financial intermediation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial intermediation, except insurance and pension funding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Insurance and pension funding, except compulsory social security</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Real estate, renting and business activities</strong></td>
<td>33</td>
<td>78</td>
<td>8</td>
</tr>
<tr>
<td>Real estate activities</td>
<td>7</td>
<td>15</td>
<td>-</td>
</tr>
<tr>
<td>Renting of machinery and equipment without operator and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of personal and household goods</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Computer and related activities</td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Research and development</td>
<td>-</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Other business activities</td>
<td>26</td>
<td>58</td>
<td>7</td>
</tr>
<tr>
<td><strong>Public administration and defence; compulsory social security</strong></td>
<td>93</td>
<td>45</td>
<td>36</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td>18</td>
<td>16</td>
<td>34</td>
</tr>
<tr>
<td><strong>Health and social work</strong></td>
<td>1</td>
<td>72</td>
<td>57</td>
</tr>
<tr>
<td><strong>Other community, social and personal service activities</strong></td>
<td>8</td>
<td>38</td>
<td>22</td>
</tr>
<tr>
<td>Sewage and refuse disposal, sanitation and similar activities</td>
<td>4</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Activities of membership organizations n.e.c.</td>
<td>-</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Recreational, cultural and sporting activities</td>
<td>3</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Other service activities</td>
<td>1</td>
<td>21</td>
<td>14</td>
</tr>
<tr>
<td><strong>Industry unknown</strong></td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>821</td>
<td>1360</td>
<td>518</td>
</tr>
</tbody>
</table>

n.e.c. = not elsewhere classified
### Table 5  Diseases by occupation

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Hearing loss</th>
<th>Repetitive strain</th>
<th>Allergic respiratory injuries</th>
<th>Skin diseases</th>
<th>Asbestos-induced diseases</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Legislators, senior officials and managers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managers of small enterprises in construction</td>
<td>8</td>
<td>6</td>
<td>1</td>
<td>4</td>
<td>12</td>
<td>-</td>
<td>31</td>
</tr>
<tr>
<td>Managers of small enterprises in manufacturing</td>
<td>6</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>9</td>
</tr>
<tr>
<td>Managers of small enterprises in wholesale and retail trade</td>
<td>-</td>
<td>11</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>14</td>
</tr>
<tr>
<td>Others</td>
<td>8</td>
<td>18</td>
<td>7</td>
<td>8</td>
<td>3</td>
<td>4</td>
<td>48</td>
</tr>
<tr>
<td><strong>Professionals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Architects, town and traffic planners</td>
<td>3</td>
<td>4</td>
<td>-</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Dentists</td>
<td>-</td>
<td>1</td>
<td>3</td>
<td>9</td>
<td>-</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>Other secondary education teaching professionals</td>
<td>2</td>
<td>1</td>
<td>8</td>
<td>3</td>
<td>-</td>
<td>18</td>
<td>32</td>
</tr>
<tr>
<td>Vocational and professional education institution lecturers</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>Radio and television journalists</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Others</td>
<td>19</td>
<td>16</td>
<td>21</td>
<td>26</td>
<td>4</td>
<td>14</td>
<td>100</td>
</tr>
<tr>
<td><strong>Technicians and associate professionals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building construction technicians</td>
<td>14</td>
<td>18</td>
<td>2</td>
<td>2</td>
<td>22</td>
<td>3</td>
<td>61</td>
</tr>
<tr>
<td>Mechanical engineering technicians</td>
<td>9</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>9</td>
<td>-</td>
<td>19</td>
</tr>
<tr>
<td>Mining and metallurgical technicians</td>
<td>6</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Other physical and engineering science technicians (not elsewhere classified)</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>Life science technicians</td>
<td>-</td>
<td>7</td>
<td>3</td>
<td>10</td>
<td>-</td>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>Physiotherapists</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>8</td>
<td>-</td>
<td>-</td>
<td>12</td>
</tr>
<tr>
<td>Nurses</td>
<td>-</td>
<td>5</td>
<td>4</td>
<td>61</td>
<td>-</td>
<td>12</td>
<td>82</td>
</tr>
<tr>
<td>Nursing and related associate professionals</td>
<td>-</td>
<td>7</td>
<td>7</td>
<td>27</td>
<td>-</td>
<td>16</td>
<td>57</td>
</tr>
<tr>
<td>Government tax and excise officials</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Others</td>
<td>25</td>
<td>17</td>
<td>26</td>
<td>20</td>
<td>14</td>
<td>15</td>
<td>117</td>
</tr>
<tr>
<td><strong>Clerks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secretaries</td>
<td>-</td>
<td>8</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Stock clerks</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>14</td>
</tr>
</tbody>
</table>

37
<table>
<thead>
<tr>
<th>Occupation</th>
<th>Hearing loss</th>
<th>Repetitive strain injuries</th>
<th>Allergic respiratory diseases</th>
<th>Skin diseases</th>
<th>Asbestos-induced diseases</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other office clerks</td>
<td>2</td>
<td>29</td>
<td>19</td>
<td>6</td>
<td>1</td>
<td>19</td>
<td>76</td>
</tr>
<tr>
<td>Tellers and other counter clerks</td>
<td>-</td>
<td>7</td>
<td>3</td>
<td>3</td>
<td>-</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>Others</td>
<td>3</td>
<td>13</td>
<td>7</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>26</td>
</tr>
</tbody>
</table>

### Service and care workers, and shop and market sales workers

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Hearing loss</th>
<th>Repetitive strain injuries</th>
<th>Allergic respiratory diseases</th>
<th>Skin diseases</th>
<th>Asbestos-induced diseases</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooks</td>
<td>2</td>
<td>14</td>
<td>16</td>
<td>24</td>
<td>-</td>
<td>3</td>
<td>59</td>
</tr>
<tr>
<td>Housekeeping and restaurant services supervisors</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Waiters, waitresses and bartenders</td>
<td>1</td>
<td>8</td>
<td>3</td>
<td>10</td>
<td>-</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>Childminders and kindergarten assistants</td>
<td>-</td>
<td>5</td>
<td>9</td>
<td>11</td>
<td>-</td>
<td>5</td>
<td>30</td>
</tr>
<tr>
<td>Dental assistants</td>
<td>-</td>
<td>4</td>
<td>2</td>
<td>17</td>
<td>-</td>
<td>6</td>
<td>29</td>
</tr>
<tr>
<td>Home care assistants</td>
<td>-</td>
<td>3</td>
<td>1</td>
<td>13</td>
<td>-</td>
<td>2</td>
<td>19</td>
</tr>
<tr>
<td>Practical nurses</td>
<td>-</td>
<td>7</td>
<td>2</td>
<td>19</td>
<td>-</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>Hairdressers and barbers</td>
<td>-</td>
<td>14</td>
<td>11</td>
<td>24</td>
<td>-</td>
<td>9</td>
<td>58</td>
</tr>
<tr>
<td>Practical rehabilitation nurses and chiropodists</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>Salespersons and cashiers</td>
<td>-</td>
<td>24</td>
<td>7</td>
<td>20</td>
<td>-</td>
<td>5</td>
<td>56</td>
</tr>
<tr>
<td>Salespersons in specialised shops</td>
<td>-</td>
<td>7</td>
<td>4</td>
<td>7</td>
<td>1</td>
<td>-</td>
<td>19</td>
</tr>
<tr>
<td>Others</td>
<td>6</td>
<td>10</td>
<td>7</td>
<td>20</td>
<td>3</td>
<td>7</td>
<td>53</td>
</tr>
</tbody>
</table>

### Skilled agricultural and fishery workers

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Hearing loss</th>
<th>Repetitive strain injuries</th>
<th>Allergic respiratory diseases</th>
<th>Skin diseases</th>
<th>Asbestos-induced diseases</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horticultural and nursery workers</td>
<td>3</td>
<td>20</td>
<td>7</td>
<td>10</td>
<td>1</td>
<td>7</td>
<td>48</td>
</tr>
<tr>
<td>Farmer’s locums</td>
<td>2</td>
<td>9</td>
<td>26</td>
<td>32</td>
<td>-</td>
<td>7</td>
<td>76</td>
</tr>
<tr>
<td>Crop and animal producers and workers</td>
<td>29</td>
<td>147</td>
<td>123</td>
<td>94</td>
<td>2</td>
<td>86</td>
<td>481</td>
</tr>
<tr>
<td>Forestry and related workers</td>
<td>19</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>29</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>11</td>
<td>6</td>
<td>6</td>
<td>1</td>
<td>5</td>
<td>30</td>
</tr>
</tbody>
</table>

### Craft and related trades workers

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Hearing loss</th>
<th>Repetitive strain injuries</th>
<th>Allergic respiratory diseases</th>
<th>Skin diseases</th>
<th>Asbestos-induced diseases</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miners and quarry workers</td>
<td>3</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Bricklayers and stonemasons</td>
<td>3</td>
<td>12</td>
<td>1</td>
<td>5</td>
<td>16</td>
<td>-</td>
<td>37</td>
</tr>
<tr>
<td>Builders</td>
<td>32</td>
<td>20</td>
<td>2</td>
<td>10</td>
<td>45</td>
<td>4</td>
<td>113</td>
</tr>
<tr>
<td>Building frame and related trades workers (not elsewhere classified)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>8</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Carpenters and joiners</td>
<td>61</td>
<td>30</td>
<td>6</td>
<td>6</td>
<td>70</td>
<td>3</td>
<td>176</td>
</tr>
<tr>
<td>Floor layers and tile setters</td>
<td>2</td>
<td>4</td>
<td>-</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Insulation workers</td>
<td>4</td>
<td>9</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>1</td>
<td>24</td>
</tr>
<tr>
<td>Plumbers and pipe fitters</td>
<td>14</td>
<td>17</td>
<td>2</td>
<td>12</td>
<td>71</td>
<td>9</td>
<td>125</td>
</tr>
<tr>
<td>Building painters</td>
<td>6</td>
<td>9</td>
<td>2</td>
<td>12</td>
<td>21</td>
<td>12</td>
<td>62</td>
</tr>
<tr>
<td>Vehicle and other painters</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>12</td>
<td>5</td>
<td>9</td>
<td>41</td>
</tr>
<tr>
<td>Metal moulders and coremakers</td>
<td>4</td>
<td>8</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>Sheet-metal workers</td>
<td>27</td>
<td>13</td>
<td>2</td>
<td>8</td>
<td>11</td>
<td>5</td>
<td>66</td>
</tr>
<tr>
<td>Structural-metal preparers and erectors</td>
<td>6</td>
<td>2</td>
<td>-</td>
<td>5</td>
<td>7</td>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>Occupation</td>
<td>Hearing loss</td>
<td>Repetitive strain injuries</td>
<td>Allergic respiratory diseases</td>
<td>Skin diseases</td>
<td>Asbestos-induced diseases</td>
<td>Others</td>
<td>Total</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>--------------</td>
<td>-----------------------------</td>
<td>-------------------------------</td>
<td>---------------</td>
<td>---------------------------</td>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td>Welders and flame cutters</td>
<td>34</td>
<td>17</td>
<td>8</td>
<td>6</td>
<td>11</td>
<td>12</td>
<td>88</td>
</tr>
<tr>
<td>Machine-tool setters and setter-operators</td>
<td>14</td>
<td>18</td>
<td>8</td>
<td>35</td>
<td>3</td>
<td>22</td>
<td>100</td>
</tr>
<tr>
<td>Metal wheel-grinders, polishers and tool sharpeners</td>
<td>6</td>
<td>3</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>11</td>
</tr>
<tr>
<td>Tool-makers and related workers</td>
<td>18</td>
<td>29</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>9</td>
<td>78</td>
</tr>
<tr>
<td>Agricultural- or industrial - machinery mechanics and fitters</td>
<td>33</td>
<td>12</td>
<td>1</td>
<td>7</td>
<td>18</td>
<td>6</td>
<td>77</td>
</tr>
<tr>
<td>Motor-vehicle mechanics and fitters</td>
<td>40</td>
<td>31</td>
<td>7</td>
<td>28</td>
<td>26</td>
<td>19</td>
<td>151</td>
</tr>
<tr>
<td>Electrical line installers, repairers and cable jointers</td>
<td>-</td>
<td>5</td>
<td>-</td>
<td>2</td>
<td>4</td>
<td>-</td>
<td>11</td>
</tr>
<tr>
<td>Electrical mechanics and servicers</td>
<td>15</td>
<td>14</td>
<td>5</td>
<td>8</td>
<td>37</td>
<td>4</td>
<td>83</td>
</tr>
<tr>
<td>Electronic installers and repairers</td>
<td>2</td>
<td>10</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>15</td>
</tr>
<tr>
<td>Precision-instrument makers and repairers</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td>2</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>Silk-screen, block and textile printers</td>
<td>-</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Bakers, pastry-cooks and confectionery makers</td>
<td>1</td>
<td>3</td>
<td>17</td>
<td>13</td>
<td>-</td>
<td>5</td>
<td>39</td>
</tr>
<tr>
<td>Butchers, fishmongers and related food preparers</td>
<td>1</td>
<td>28</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>32</td>
</tr>
<tr>
<td>Cabinetmakers and related workers</td>
<td>3</td>
<td>16</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td>Wood treaters</td>
<td>6</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Woodworking machine setters and setter-operators</td>
<td>7</td>
<td>14</td>
<td>2</td>
<td>8</td>
<td>-</td>
<td>5</td>
<td>36</td>
</tr>
<tr>
<td>Others</td>
<td>22</td>
<td>38</td>
<td>3</td>
<td>21</td>
<td>14</td>
<td>11</td>
<td>109</td>
</tr>
</tbody>
</table>

### Plant and machine operators and assemblers

<table>
<thead>
<tr>
<th>Plant and machine operators and assemblers</th>
<th>141</th>
<th>296</th>
<th>51</th>
<th>111</th>
<th>55</th>
<th>49</th>
<th>703</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ore and metal furnace operators</td>
<td>6</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Papermaking-plant operators</td>
<td>23</td>
<td>10</td>
<td>3</td>
<td>1</td>
<td>10</td>
<td>1</td>
<td>48</td>
</tr>
<tr>
<td>Wood-processing-plant operators</td>
<td>15</td>
<td>19</td>
<td>8</td>
<td>16</td>
<td>1</td>
<td>-</td>
<td>59</td>
</tr>
<tr>
<td>Chemical-processing-plant operators</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Power-production plant operators</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>-</td>
<td>6</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>Cement and other mineral products machine operators</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Plastic-products machine operators</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>13</td>
<td>-</td>
<td>7</td>
<td>31</td>
</tr>
<tr>
<td>Printing-machine operators</td>
<td>7</td>
<td>6</td>
<td>-</td>
<td>8</td>
<td>1</td>
<td>4</td>
<td>26</td>
</tr>
<tr>
<td>Sewing-machine operators</td>
<td>-</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>11</td>
</tr>
<tr>
<td>Shoemaking- and related machine operators</td>
<td>-</td>
<td>15</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>Occupation</td>
<td>Hearing loss</td>
<td>Repetitive strain injuries</td>
<td>Allergic respiratory diseases</td>
<td>Skin diseases</td>
<td>Asbestos-induced diseases</td>
<td>Others</td>
<td>Total</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>--------------</td>
<td>----------------------------</td>
<td>--------------------------------</td>
<td>---------------</td>
<td>--------------------------</td>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td>Baked-goods, cereal- and chocolate</td>
<td>4</td>
<td>13</td>
<td>8</td>
<td>8</td>
<td>-</td>
<td>6</td>
<td>39</td>
</tr>
<tr>
<td>-products machine operators</td>
<td>5</td>
<td>12</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>19</td>
</tr>
<tr>
<td>Dairy-products machine operators</td>
<td>3</td>
<td>97</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>-</td>
<td>107</td>
</tr>
<tr>
<td>Meat- and fish-processing-machine</td>
<td>-</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>-</td>
<td>13</td>
</tr>
<tr>
<td>operators</td>
<td>-</td>
<td>10</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>Electronic-equipment assemblers</td>
<td>3</td>
<td>17</td>
<td>-</td>
<td>6</td>
<td>-</td>
<td>2</td>
<td>28</td>
</tr>
<tr>
<td>Mechanical-machinery assemblers</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>-</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>Wood and related products</td>
<td>5</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>bus and tram drivers</td>
<td>14</td>
<td>17</td>
<td>2</td>
<td>6</td>
<td>7</td>
<td>-</td>
<td>46</td>
</tr>
<tr>
<td>Heavy truck and lorry drivers</td>
<td>8</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>21</td>
</tr>
<tr>
<td>Earth-moving and related plant operators</td>
<td>10</td>
<td>3</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>15</td>
</tr>
<tr>
<td>Lifting-truck operators</td>
<td>27</td>
<td>42</td>
<td>7</td>
<td>18</td>
<td>14</td>
<td>11</td>
<td>119</td>
</tr>
</tbody>
</table>

**Elementary occupations**

| Assistant nurses and hospital ward assistants | - | 7 | 3 | 10 | - | 3 | 23 |
| Cleaners                                   | 8 | 58 | 10 | 31 | 5 | 13 | 125 |
| Kitchen helpers                           | 3 | 10 | 3 | 24 | - | 3 | 43 |
| Building caretakers                        | 7 | 11 | 1 | 3 | 7 | 6 | 35 |
| Construction and maintenance labourers: roads, dams and similar constructions | 4 | 6 | - | - | 1 | 3 | 14 |
| Manufacturing labourers                    | 5 | 53 | 4 | 7 | - | 1 | 70 |
| Transport labourers and freight handlers   | 11 | 27 | 9 | 6 | 6 | 2 | 61 |
| Others                                    | 1 | 5 | - | 1 | 6 | 1 | 14 |

**Armed forces**

| Military special personnel | 5 | - | - | - | - | - | 5 |
| Officers                   | 22 | - | - | - | - | - | 22 |
| Special officers           | 5 | - | - | - | - | - | 5 |
| Warrant officers           | 15 | 4 | - | - | - | - | 19 |

**Occupation unknown**

| 33 | 20 | 4 | 19 | 28 | 19 | 123 |

**Economically inactive**

| 1 | 14 | 1 | 6 | 1 | 13 | 36 |

**Total**

<p>| 821 | 1360 | 518 | 965 | 588 | 555 | 4807 |</p>
<table>
<thead>
<tr>
<th>Cause</th>
<th>Allergic alveolitis</th>
<th>Asthma</th>
<th>Allergic rhinitis</th>
<th>ODTS</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aromatic hydrocarbons</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Phenols and phenolates (not chlorophenols)</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Aliphatic aldehydes</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Carboxylic acid anhydrides</td>
<td>-</td>
<td>2</td>
<td>4</td>
<td>-</td>
<td>6</td>
</tr>
<tr>
<td>Esters of aliphatic carboxylic acids (e.g. acrylates)</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Hydroperoxides and peroxides</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Amines</td>
<td>-</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Amides (e.g. thiuram sulfides)</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Isocyanates</td>
<td>-</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>6</td>
</tr>
<tr>
<td>Heterocyclic compounds (oxygen in ring)</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Heterocyclic compounds (nitrogen in ring)</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Polysaccharides</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Inorganic bases</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Chromium group metals and their compounds</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Oils and lubricants</td>
<td>-</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Synthetic resins and plastics</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Natural rubber (latex)</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Natural resins, balsams and their derivatives (except latex)</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Resins, plastics and their derivatives (not specified)</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Paints</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Synthetic glues</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Hair dyes</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Detergents</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Cosmetics</td>
<td>-</td>
<td>5</td>
<td>2</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>Cement, concrete</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Flours, grains and fodders</td>
<td>-</td>
<td>42</td>
<td>40</td>
<td>-</td>
<td>82</td>
</tr>
<tr>
<td>Species of wood</td>
<td>1</td>
<td>10</td>
<td>5</td>
<td>-</td>
<td>16</td>
</tr>
<tr>
<td>Plants</td>
<td>-</td>
<td>3</td>
<td>11</td>
<td>-</td>
<td>14</td>
</tr>
<tr>
<td>Plant-derived dusts and substances</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Animal epithelia, hairs or secretions/excretions</td>
<td>-</td>
<td>22</td>
<td>39</td>
<td>-</td>
<td>61</td>
</tr>
<tr>
<td>Other animal-derived dusts or substances</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Organic materials, not listed elsewhere (not specified)</td>
<td>-</td>
<td>24</td>
<td>5</td>
<td>-</td>
<td>29</td>
</tr>
<tr>
<td>Sprays, fumes, dusts and smoke (mixtures)</td>
<td>-</td>
<td>15</td>
<td>-</td>
<td>-</td>
<td>15</td>
</tr>
<tr>
<td>Other chemical agents (not specified)</td>
<td>-</td>
<td>39</td>
<td>-</td>
<td>-</td>
<td>39</td>
</tr>
<tr>
<td>Yeasts</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Molds</td>
<td>54</td>
<td>79</td>
<td>15</td>
<td>7</td>
<td>155</td>
</tr>
<tr>
<td>Mites</td>
<td>-</td>
<td>19</td>
<td>18</td>
<td>-</td>
<td>37</td>
</tr>
<tr>
<td>Toxins and toxoids</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other biological agents (not specified)</td>
<td>-</td>
<td>3</td>
<td>1</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Unknown factors</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>304</td>
<td>151</td>
<td>8</td>
<td>518</td>
</tr>
<tr>
<td>Cause</td>
<td>Allergic contact dermatitis</td>
<td>Irritant contact dermatitis</td>
<td>Skin infections</td>
<td>Protein contact dermatitis or contact urticaria</td>
<td>Others</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>----------------------------</td>
<td>----------------------------</td>
<td>-----------------</td>
<td>-----------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Temperature</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Humidity</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Warm moisture</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Non-ionizing radiation</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Aromatic hydrocarbons</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Monohydric alcohols</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Dihydric alcohols (glycols)</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Phenols and phenolates (not chlorophenols)</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Chlorophenols and chlorophenolates</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Ethers of aromatic alcohols</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Epoxides</td>
<td>8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td>Aliphatic aldehydes</td>
<td>17</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>Aldehydes (not specified)</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Quinones</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Aliphatic carboxylic acids</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Percarboxylic acids and acyl peroxydides</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Carboxylic acid anhydrides</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Esters of aliphatic carboxylic acids</td>
<td>e.g. acrylates</td>
<td>22</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Amines</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6</td>
</tr>
<tr>
<td>Amides (e.g. thiuram sulfides)</td>
<td>16</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>17</td>
</tr>
<tr>
<td>Organic cyanides and nitriles</td>
<td>(cyano compounds)</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Isocyanates</td>
<td>1</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Hydratzine, azo, diazo, and diazonium</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Heterocyclic compounds (sulfur in ring)</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Organic zinc compounds</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Inorganic gases containing sulfur</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Inorganic acids</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Inorganic bases</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Boron and its compounds</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Arsenic and its compounds</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Cause</td>
<td>Allergic contact dermatitis</td>
<td>Irritant contact dermatitis</td>
<td>Skin infections</td>
<td>Protein contact dermatitis or contact urticaria</td>
<td>Others</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>----------------------------</td>
<td>-----------------------------</td>
<td>-----------------</td>
<td>-----------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Sulfur, carbon disulfide and ammonium sulfate derivatives</td>
<td>3</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tin, lead and their compounds</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Copper and platinum metals and their compounds</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Zinc, cadmium, mercury and their compounds</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Chromium group metals and their compounds</td>
<td>12</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cobalt, nickel and their compounds</td>
<td>39</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>42</td>
</tr>
<tr>
<td>Chromium group metals and their compounds (not specified)</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Crude oil based organic solvent mixtures</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Organic solvent mixtures, not specified</td>
<td>-</td>
<td>17</td>
<td>-</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Crude oil based fuels</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Oils and lubricants</td>
<td>3</td>
<td>41</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Synthetic resins and plastics</td>
<td>30</td>
<td>2</td>
<td>-</td>
<td>3</td>
<td>35</td>
</tr>
<tr>
<td>Natural rubber (latex)</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Natural resins, balsams and their derivatives (except latex)</td>
<td>24</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Resins, plastics and their derivatives (not specified)</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Paints</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Varnishes</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Synthetic glues</td>
<td>4</td>
<td>1</td>
<td>-</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Natural glues</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Glues (not specified)</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Rubbers</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Printing inks</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Fur dyes</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hair dyes</td>
<td>9</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Rubber chemicals</td>
<td>37</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Detergents</td>
<td>1</td>
<td>58</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Disinfectants</td>
<td>1</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cosmetics</td>
<td>1</td>
<td>8</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Perfumes and aromatic substances</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cause</td>
<td>Allergic contact dermatitis</td>
<td>Irritant contact dermatitis</td>
<td>Skin infections</td>
<td>Protein contact dermatitis or contact urticaria</td>
<td>Others</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>----------------------------</td>
<td>----------------------------</td>
<td>-----------------</td>
<td>-------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Preservatives and antimicrobial agents</td>
<td>8</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Other known substances classified</td>
<td>3</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>according to their use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Synthetic mineral fibers</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cement, concrete</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Other known minerals and synthetic fibers</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Textiles</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Flours, grains and fodders</td>
<td>3</td>
<td>2</td>
<td>-</td>
<td>27</td>
<td>1</td>
</tr>
<tr>
<td>Species of wood</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Plants</td>
<td>16</td>
<td>4</td>
<td>-</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Animal epithelia, hairs or secretions/excretions</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>50</td>
<td>-</td>
</tr>
<tr>
<td>Other animal-derived dusts or substances</td>
<td></td>
<td></td>
<td>-</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Enzymes</td>
<td></td>
<td></td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Organic materials, not listed elsewhere (not specified)</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Sprays, fumes, dusts and smoke (mixtures)</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Wet work</td>
<td></td>
<td></td>
<td>-</td>
<td>42</td>
<td>-</td>
</tr>
<tr>
<td>Dirty work</td>
<td></td>
<td></td>
<td>-</td>
<td>24</td>
<td>-</td>
</tr>
<tr>
<td>Handling of foodstuffs</td>
<td>1</td>
<td>14</td>
<td>-</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Other chemical agents (not specified)</td>
<td></td>
<td></td>
<td>-</td>
<td>20</td>
<td>27</td>
</tr>
<tr>
<td>Molds</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Dermatophytes</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>19</td>
</tr>
<tr>
<td>Eubacteria</td>
<td></td>
<td></td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Bacteria (not specified)</td>
<td></td>
<td></td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Poxviruses</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Mites</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>90</td>
</tr>
<tr>
<td>Insects</td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other biological agents (not specified)</td>
<td></td>
<td></td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Mechanical friction of the skin</td>
<td></td>
<td></td>
<td>-</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Unknown factors</td>
<td>4</td>
<td>3</td>
<td>-</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>330</strong></td>
<td><strong>313</strong></td>
<td><strong>112</strong></td>
<td><strong>115</strong></td>
<td><strong>95</strong></td>
</tr>
</tbody>
</table>
Table 8  Diseases by EU classification\(^{1}\) and gender

<table>
<thead>
<tr>
<th>Code</th>
<th>Disease</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Diseases caused by the following chemical agents:</td>
<td>76</td>
<td>62</td>
<td>138</td>
</tr>
<tr>
<td>100</td>
<td>Acrylonitrile</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>101</td>
<td>Arsenic or compounds thereof</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>102</td>
<td>Beryllium (glucinium) or compounds thereof</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10301</td>
<td>Carbon monoxide</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>10302</td>
<td>Carbon oxychloride</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10401</td>
<td>Hydrocyanic acid</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10402</td>
<td>Cyanides or compounds thereof</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>10403</td>
<td>Isocyanates</td>
<td>8</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>105</td>
<td>Cadmium or compounds thereof</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>106</td>
<td>Chromium or compounds thereof</td>
<td>15</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>107</td>
<td>Mercury or compounds thereof</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>108</td>
<td>Manganese or compounds thereof</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10901</td>
<td>Nitric acid</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>10902</td>
<td>Oxides of nitrogen</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10903</td>
<td>Ammonia</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>110</td>
<td>Nickel or compounds thereof</td>
<td>12</td>
<td>26</td>
<td>38</td>
</tr>
<tr>
<td>111</td>
<td>Phosphorus or compounds thereof</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>112</td>
<td>Lead or compounds thereof</td>
<td>5</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>11301</td>
<td>Oxides of sulphur</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>11302</td>
<td>Sulphuric acid</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>11303</td>
<td>Carbon disulphide</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>114</td>
<td>Vanadium or compounds thereof</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>11501</td>
<td>Chlorine</td>
<td>3</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>11502</td>
<td>Bromine</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>11504</td>
<td>Iodine</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>11505</td>
<td>Fluorine or compounds thereof</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>116</td>
<td>Aliphatic or alicyclic hydrocarbons derived from petroleum spirit or petrol</td>
<td>4</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>117</td>
<td>Halogenated derivates of aliphatic or alicyclic hydrocarbons</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>118</td>
<td>Butyl, methyl and isopropyl alcohol</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>119</td>
<td>Ethylene glycol, diethylene glycol, 1,4-butanediol and the nitrated derivates of the glycols and of glycerol</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>120</td>
<td>Methyl ether, ethyl ether, isopropyl ether, vinyl ether, dichloroisopropyl ether, guaiacol, methyl and ethyl ether of ethylene glycol</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>121</td>
<td>Acetone, chloroacetone, bromoacetone, hexafluoroacetone, methyl ethyl ketone, methyl n-butyl ketone, methyl isobutyl ketone, diacetone alcohol, mesityl oxide, 2-methylcyclohexanone</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Code</td>
<td>Disease</td>
<td>Men</td>
<td>Women</td>
<td>Total</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------------------------------------------------------------</td>
<td>-----</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>122</td>
<td>Organophosphorus esters</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>123</td>
<td>Organic acids</td>
<td>4</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>124</td>
<td>Formaldehyde</td>
<td>7</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>125</td>
<td>Aliphatic nitrate derivates</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>12601</td>
<td>Benzene or counterparts thereof (the counterparts of benzene are defined by the formula: C_nH_{2n-6})</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>12602</td>
<td>Naphthalene or naphthalene counterparts (the counterparts of naphthalene are defined by the formula: C_nH_{2n-12})</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12603</td>
<td>Vinylbenzene and divinylbenzene</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>127</td>
<td>Halogenated derivatives of aromatic hydrocarbons</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>12801</td>
<td>Phenols or counterparts or halogenated derivates thereof</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>12802</td>
<td>Naphthols or counterparts or halogenated derivates thereof</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12803</td>
<td>Halogenated derivatives of the alkylaryl oxides</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12804</td>
<td>Halogenated derivatives of the alkylaryl sulfonates</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12805</td>
<td>Benzoquinones</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12901</td>
<td>Aromatic amines or aromatic hydrazines or halogenated, phenolic, nitrified, nitrate derivates thereof</td>
<td>2</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>12902</td>
<td>Aliphatic amines and halogenated derivatives thereof</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>13001</td>
<td>Nitrate derivates of aromatic hydrocarbons</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>13002</td>
<td>Nitrate derivates of phenols or their counterparts</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>131</td>
<td>Antimony and derivates thereof</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**2** Skin diseases caused by substances and agents not included under other headings

<table>
<thead>
<tr>
<th>Code</th>
<th>Disease</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>201</td>
<td>Skin diseases and skin cancers caused by:</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>20101</td>
<td>Soot</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>20102</td>
<td>Tar</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>20103</td>
<td>Bitumen</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>20104</td>
<td>Pitch</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>20105</td>
<td>Anthracene or compounds thereof</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>20106</td>
<td>Mineral and other oils</td>
<td>45</td>
<td>3</td>
<td>48</td>
</tr>
<tr>
<td>20107</td>
<td>Crude paraffin</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>20108</td>
<td>Carbazole or compounds thereof</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>20109</td>
<td>By-products of the distillation of coal</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>202</td>
<td>Occupational skin ailments caused by scientifically recognized allergy provoking or irritative substances not included under other headings</td>
<td>283</td>
<td>411</td>
<td>694</td>
</tr>
</tbody>
</table>

**3** Diseases caused by the inhalation of substances and agents not included under other headings

<table>
<thead>
<tr>
<th>Code</th>
<th>Disease</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>301</td>
<td>Diseases of the respiratory system and cancers:</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>30111</td>
<td>Silicosis</td>
<td>6</td>
<td>-</td>
<td>6</td>
</tr>
<tr>
<td>30112</td>
<td>Silicosis combined with pulmonary tuberculosis</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>30121</td>
<td>Asbestosis</td>
<td>86</td>
<td>2</td>
<td>88</td>
</tr>
<tr>
<td>30122</td>
<td>Mesothelioma following the inhalation of asbestos dust</td>
<td>46</td>
<td>2</td>
<td>48</td>
</tr>
<tr>
<td>Code</td>
<td>Disease</td>
<td>Men</td>
<td>Women</td>
<td>Total</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------------------------------------------------------------</td>
<td>-----</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>30131</td>
<td>Pneumoconioses caused by dusts of silicates</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>302</td>
<td>Complication of asbestos in the form of bronchial cancer</td>
<td>83</td>
<td>1</td>
<td>84</td>
</tr>
<tr>
<td>303</td>
<td>Broncho-pulmonary ailments caused by dusts from sintered metals</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>30401</td>
<td>Extrinsic allergic alveolites</td>
<td>23</td>
<td>32</td>
<td>55</td>
</tr>
<tr>
<td>30402</td>
<td>Lung diseases caused by the inhalation of dusts and fibres from cotton, flax, hemp, jute, sisal and bagasse</td>
<td>83</td>
<td>1</td>
<td>84</td>
</tr>
<tr>
<td>30403</td>
<td>Respiratory ailments of an allergic nature caused by the inhalation of substances consistently recognized as causing allergies and inherent to the type of work</td>
<td>189</td>
<td>266</td>
<td>455</td>
</tr>
<tr>
<td>30404</td>
<td>Respiratory ailments caused by the inhalation of dust from cobalt, tin, barium and graphite</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>30405</td>
<td>Siderosis</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>30501</td>
<td>Cancerous diseases of the upper respiratory tract caused by dust from wood</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

4. **Infectious and parasitic diseases:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Disease</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>401</td>
<td>Infectious or parasitic diseases transmitted to man by animals or remains of animals</td>
<td>78</td>
<td>17</td>
<td>95</td>
</tr>
<tr>
<td>402</td>
<td>Tetanus</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>403</td>
<td>Brucellosis</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>404</td>
<td>Viral hepatitis</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>405</td>
<td>Tuberculosis</td>
<td>4</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>406</td>
<td>Amoebias</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

5. **Diseases caused by the following physical agents:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Disease</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>50201</td>
<td>Cataracts caused by heat radiation</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>50202</td>
<td>Conjunctival ailments following exposure to ultraviolet radiation</td>
<td>62</td>
<td>1</td>
<td>63</td>
</tr>
<tr>
<td>503</td>
<td>Hypoacousiosis or deafness caused by noise</td>
<td>765</td>
<td>55</td>
<td>820</td>
</tr>
<tr>
<td>504</td>
<td>Diseases caused by atmospheric pressure or decompression</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>50501</td>
<td>Osteoarticular diseases of the hands and wrists caused by mechanical vibration</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>50502</td>
<td>Angioneurotic diseases caused by mechanical vibration</td>
<td>11</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>50610</td>
<td>Diseases of the periarticular sacs due to pressure</td>
<td>21</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>50621</td>
<td>Diseases due to overstraining of the tendon sheaths</td>
<td>315</td>
<td>235</td>
<td>550</td>
</tr>
<tr>
<td>50622</td>
<td>Diseases due to overstraining of the peritendineum</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>50623</td>
<td>Diseases due to overstraining of the muscular and tendonous insertions</td>
<td>278</td>
<td>261</td>
<td>539</td>
</tr>
<tr>
<td>50630</td>
<td>Meniscus lesions following extended periods of work in a kneeling or squatting position</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>50640</td>
<td>Paralysis of the nerves due to pressure</td>
<td>21</td>
<td>33</td>
<td>54</td>
</tr>
<tr>
<td>507</td>
<td>Miner's nystagmus</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>508</td>
<td>Diseases caused by ionizing radiation</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

*Included in 50621

Diseases not included to the European schedule: 613 401 1014

Total: 3009 1798 4807
Appendices

1. The Register of Occupational Diseases
2. Act on Occupational Diseases (1343/88)
3. Ordinance on Occupational Diseases (1347/88)
4. Statute on Certain Injuries Compensable as Occupational Accidents (852/48)
Appendix 1  The Register of Occupational Diseases

The Finnish Register of Occupational Diseases (FROD) was established at the Finnish Institute of Occupational Health (FIOH) in 1964. The objectives of the FROD are to serve as a source of statistics on occupational diseases, and to promote research on occupational health. The FROD is maintained by the Surveillance Section of the FIOH. Altogether 176,000 cases of occupational diseases, of which about 34,000 are skin diseases, have accumulated in the Register during 1964–2002.

A diagnosed case of occupational disease is the statistical unit of observation. The FROD obtains its information from two sources. Notification of every new case reported to the insurance companies as an occupational disease is sent to the Register. According to the Act on the Supervision of Labor Protection; physicians are obligated to report cases of occupational diseases and work-related illnesses to the provincial labour protection authority, which then forwards the reports to the FIOH. Information from these two sources is combined so that each new permanent occupational disease is registered only once.

A recorded case of an occupational disease contains identification data on the person (personal ID number, name, sex, age, occupational title), information on the employer (name, industry, location), description of the disease (diagnosis, date of diagnosis), information on causes (exposures and exposure times) and information on compensation and severity.

Data flows into the Finnish Register of Occupational Diseases
<table>
<thead>
<tr>
<th>Disease groups</th>
<th>In the statistics, occupational diseases are classified according to diagnosis and cause in the following disease groups:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hearing loss</td>
<td>Noise-induced hearing loss refers to the deterioration of hearing due to prolonged exposure to noise or sometimes also due to momentary impulse noise.</td>
</tr>
<tr>
<td>Repetitive strain injury</td>
<td>A repetitive strain injury is a musculoskeletal disease, caused by non-physiological stress in work (repetitive and monotonous work, unusual working postures). The group includes tenosynovitis, peridensitis, epicondylitis, bursitis and mononeuropathy.</td>
</tr>
<tr>
<td>Allergic respiratory diseases</td>
<td>Allergic respiratory diseases include asthma, allergic rhinitis, allergic alveolitis and organic dust toxic syndrome (ODTS).</td>
</tr>
<tr>
<td>Skin diseases</td>
<td>Occupational skin diseases are caused by chemical agents or microorganisms in the work environment; the most important diseases in this group are irritant contact dermatitis, allergic contact dermatitis and protein contact dermatitis/contact urticaria.</td>
</tr>
<tr>
<td>Asbestos-induced diseases</td>
<td>This group includes all occupational diseases caused by asbestos, pleural adhesions and calcifications being the most frequent. Cancer and asbestosis are the most severe diseases in this group.</td>
</tr>
<tr>
<td>Others</td>
<td>This group includes, e.g., infectious diseases, conjunctivitis, vibration syndrome, and various types of poisoning.</td>
</tr>
</tbody>
</table>

| Defects and sources of error | The coverage of the FROD is not complete. Some physicians unfortunately neglect to report occupational diseases. Also, not all physicians have training in occupational medicine, and thus may fail to connect diseases with working conditions. Information is also lacking on cases which were reported to insurance companies but were finally not accepted as occupational disease. For these reasons, some occupational diseases are neither diagnosed nor recorded. |
| Secrecy of information | The information in the FROD is secret according to both the Act on the Supervision of Labor Protection and the Act on Insurance of Occupational Injuries. Information may be used only for scientific research, official plans or studies, and statistical purposes. The Register is also regulated by the Personal Data Act and by the Act on the Openness of Government Activities. Only the persons authorized by the controller are allowed process personal data. The authorized persons shall not disclose the secret data. The person responsible for the FROD is Dr. Timo Kauppinen, the chief of the Surveillance Section of the FIOH. |

51
A Finnish statistical review of occupational diseases is compiled every year. Statistical reports from the FROD are compiled on request. Requests for reports and other information may be addressed to Dr. Timo Kauppinen, Finnish Institute of Occupational Health, Topeliuksenkatu 41 a A, FIN-00250 Helsinki, Finland tel. +358 9 47471 fax +358 9 2414 634, email: timo.kauppinen@fioh.fi.


**Appendix 2  Act on Occupational Diseases (1343/88)**

(Official translation)

1 § An occupational disease that is entitled to compensation according to the Accident Insurance Act (608/48) or the Act on Agricultural Workers’ Accident Insurance (102/81) or the Act entitling persons employed in public service or holding public office to compensation in the event of an accident (154/35), is a disease caused by any physical factor, chemical substance or biological agent encountered in the course of work done under contract of employment, in the public service or in public office or as an agricultural entrepreneur, as prescribed in those acts.

What is stated in the first subsection on occupational diseases, shall also be applied to notable worsening of another disease or injury than occupational during the period of this deterioration.

2 § The ordinance states that the causal connection between the disease mentioned in the first subsection of Paragraph 1 and a physical, chemical or biological factor in work is regarded as existing when such a factor has been present in the work to such an extent that it principally can cause the disease designated by the Act.

3 § Liability for compensation, the amount of compensation payable, and the procedure to be followed for that purpose shall be governed by the Accident Insurance Act, the Act on Agricultural Workers’ Accident Insurance, and the Act entitling persons employed in public service or holding public office to compensation in the event of accident.
For this purpose the date on which the disease manifests shall be equated with the date of occurrence of the accident. If other specific reasons do not require it, the date of manifestation of the disease shall be determined as the date when a person has sought medical advice, for the first time, from a doctor concerning a later diagnosed occupational disease. The time limit within which compensation must be claimed shall invariably be reckoned as beginning on the date on which the disease is diagnosed or the incapacity of the person begins.

When a worker, agricultural entrepreneur or person employed in public service or holding public office is not, on the appearance of an occupational disease, engaged in a process that could have been the cause of the disease, liability for compensation shall be determined on the basis of the employment, agricultural entrepreneurship, public service or public office in which he was last engaged in a process that could have been the cause of the disease.

4 §  The Ordinance states more precisely:
1) the determination of the disease and the factors exposing to it; 
2) the liability for compensation in the case of tendovaginitis and humeral epicondylitis; 
3) the other measures of execution of this Act.

5 §  A copy of this Act and the Ordinance made thereunder shall be posted and kept available by the employer at the workplace.

6 §  This Act will be in force as of 11 January 1989 and repeal the Act on Occupational Diseases (638/67) and its later modifications.
Appendix 3  Ordinance on Occupational Diseases (1347/88)
(Unofficial translation)

1 §  Diagnosis of a disease as an occupational disease requires such medical examination where there is sufficient knowledge about exposure in the work and where in the case of occupational diseases designated by the Act on Occupational Diseases in Paragraph 2 a specialist in the field is in charge.

2 §  A disease shall be deemed as occupational according to 2 § and the first subsection of 4 § and later in 3 §, when the physical, chemical or biological factor mentioned in the paragraph is present in a person’s work, and is covered by subsection 1 of 1 § in the Act on Occupational Diseases, to such an extent that its exposure effect is sufficient to cause the disease in question, unless it is stated that the disease has been clearly caused by exposure outside work.

3 §  The following are the diseases and the physical, chemical and biological factors referred to in Paragraph 2:

Physical factors

Typical forms of disease

<table>
<thead>
<tr>
<th>1. Vibration</th>
<th>White finger syndrome; polyneuropathy of the upper limb.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Noise</td>
<td>Cochlear type of deterioration of hearing.</td>
</tr>
<tr>
<td>3. Overpressure</td>
<td>Direct effects of changes in pressure, such as maxillary haemorrhages and tympanic ruptures, indirect effects of pressure such as nitrous inebriation and diver’s disease; as a long-term effect an aseptic bone necrosis of the big joints.</td>
</tr>
<tr>
<td>4. Ionizing radiation</td>
<td>Bone marrow injuries, lens opacities, skin changes (dermatitis, wounds, scars, skin cancer).</td>
</tr>
<tr>
<td>5. Infrared radiation</td>
<td>Lens opacities, e.g. glassblower’s cataract; skin changes (connective tissue changes, telangiectasis).</td>
</tr>
<tr>
<td>6. Ultraviolet radiation</td>
<td>Conjunctivitis and keratitis of the eye; skin changes (photodermatitis, photocontact dermatitis).</td>
</tr>
</tbody>
</table>
### Chemical factors

<table>
<thead>
<tr>
<th>Typical forms of disease</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Arsenic and its compounds</strong></td>
</tr>
<tr>
<td><strong>2. Beryllium and its compounds</strong></td>
</tr>
<tr>
<td><strong>3. Mercury and its compounds</strong></td>
</tr>
<tr>
<td><strong>4. Phosphorus and its compounds</strong></td>
</tr>
<tr>
<td><strong>5. Cadmium and its compounds</strong></td>
</tr>
<tr>
<td><strong>6. Cobalt and its compounds</strong></td>
</tr>
<tr>
<td><strong>7. Chromium and its compounds</strong></td>
</tr>
<tr>
<td>Typical forms of disease</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>8. Lead and its compounds</strong></td>
</tr>
<tr>
<td>The first sign of subchronic or chronic inorganic lead intoxication is disturbed</td>
</tr>
<tr>
<td>haemoglobin synthesis, later anaemia, reticulocytosis, peripheral nerve injuries,</td>
</tr>
<tr>
<td>gastrointestinal symptoms, liver and kidney injuries, and central nervous symptoms.</td>
</tr>
<tr>
<td>Organic lead intoxication is characterized by central nervous symptoms. In inorganic</td>
</tr>
<tr>
<td>lead intoxication symptoms are associated with elevated blood lead level and elevated</td>
</tr>
<tr>
<td>erythrocyte protoporphyrin values, and in organic lead intoxication with elevated lead</td>
</tr>
<tr>
<td>levels in blood and urine.</td>
</tr>
<tr>
<td><strong>9. Manganese and its compounds</strong></td>
</tr>
<tr>
<td>Acute chemical pneumonitis; chronic manganese intoxication (manganism), dominated by</td>
</tr>
<tr>
<td>nervous symptoms.</td>
</tr>
<tr>
<td><strong>10. Nickel and its compounds</strong></td>
</tr>
<tr>
<td>Skin changes (contact dermatitis); rhinitis and asthma due to nickel allergy; chemical</td>
</tr>
<tr>
<td>pneumonitis caused by nickel carbonyl; sinusal and pulmonary cancer.</td>
</tr>
<tr>
<td><strong>11. Zinc and its compounds</strong></td>
</tr>
<tr>
<td>Zinc fever; skin changes caused by zinc chloride (contact dermatitis, corrosion).</td>
</tr>
<tr>
<td><strong>12. Vanadium and its compounds</strong></td>
</tr>
<tr>
<td>Irritation of respiratory tract (chemical pneumonitis, bronchial constriction).</td>
</tr>
<tr>
<td><strong>13. Halogens and their inorganic compounds</strong></td>
</tr>
<tr>
<td>(chlorine, bromine, fluorine)</td>
</tr>
<tr>
<td>Irritation and corrosion of mucous membranes and conjunctiva; chemical pneumonitis;</td>
</tr>
<tr>
<td>bone changes caused by fluorine compounds (fluorosis); fever caused by fluorine polymer</td>
</tr>
<tr>
<td>dispersion products (polymer fever); skin changes (contact dermatitis, corrosion caused</td>
</tr>
<tr>
<td>by fluorides)</td>
</tr>
<tr>
<td><strong>14. Cyano compounds</strong></td>
</tr>
<tr>
<td>Acute cyanide intoxication, chronic intoxication (respiratory symptoms, nervous</td>
</tr>
<tr>
<td>symptoms); respiratory diseases caused by isocyanates (asthma).</td>
</tr>
<tr>
<td><strong>15. Carbon disulfide</strong></td>
</tr>
<tr>
<td>Acute intoxication with mainly central nervous symptoms; chronic intoxication by</td>
</tr>
<tr>
<td>carbon disulfide with central and peripheral nervous symptoms, possibly associated with</td>
</tr>
<tr>
<td>coronary heart disease.</td>
</tr>
<tr>
<td><strong>16. Hydrogen sulfide</strong></td>
</tr>
<tr>
<td>Acute intoxication with symptoms of mainly the respiratory and central nervous system</td>
</tr>
<tr>
<td>and pulmonary oedema.</td>
</tr>
<tr>
<td><strong>17. Sulfur dioxide and sulfuric acid</strong></td>
</tr>
<tr>
<td>Irritative and inflammatory symptoms of mucous membranes and respiratory organs;</td>
</tr>
<tr>
<td>corrosion of teeth and eyes; skin changes (contact dermatitis, corrosion).</td>
</tr>
<tr>
<td>Typical forms of disease</td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td>18. Nitrogen oxides, nitric acid and ammonia</td>
</tr>
<tr>
<td>19. Carbon monoxide</td>
</tr>
<tr>
<td>20. Phosgene</td>
</tr>
<tr>
<td>21. Inorganic bases and their anhydrides</td>
</tr>
<tr>
<td>22. Aliphatic, aromatic and alicyclic hydrocarbons</td>
</tr>
<tr>
<td>23. Halogenated derivatives of hydrocarbons</td>
</tr>
<tr>
<td>24. Nitro and amino derivatives of hydrocarbons, amines</td>
</tr>
<tr>
<td>25. Nitroglycerol and nitroglycol</td>
</tr>
<tr>
<td>26. Aldehydes, ketones, alcohols ethers and esters</td>
</tr>
<tr>
<td>27. Organic acids and acid anhydrides</td>
</tr>
</tbody>
</table>
### Typical forms of disease

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>28. Phenol and its homologs and their halogen and nitro derivatives</strong></td>
<td>Acute intoxications with respiratory, hepatic, renal and central nervous system symptoms; chronic intoxication with central nervous and gastro-intestinal symptoms; skin changes (contact dermatitis, changes in pigmentation); haemolytic anaemia; methaemoglobinemia; hepatic cancer caused by polychlorinated biphenyls.</td>
</tr>
<tr>
<td><strong>29. Antibiotics</strong></td>
<td>Skin changes (contact dermatitis); respiratory allergies.</td>
</tr>
<tr>
<td><strong>30. Cancer drugs</strong></td>
<td>Leukaemias, lymphohaematopoietic cancers and bladder cancer.</td>
</tr>
<tr>
<td><strong>31. Plastics and synthetic resins and the substances and intermediates involved in their production</strong></td>
<td>Respiratory diseases (asthma, rhinitis); skin changes (contact dermatitis).</td>
</tr>
<tr>
<td><strong>32. Organic dusts and exposures</strong></td>
<td>Skin changes (contact dermatitis, contact urticaria, protein contact dermatitis); allergic rhinitis, conjunctivitis or pulmonary asthma caused by organic dust, Monday fever (byssinosis) caused by raw cotton.</td>
</tr>
<tr>
<td><strong>33. Mineral dusts</strong></td>
<td>Pulmonary diseases caused by quartz and asbestos dust (pneumoconiosis); pulmonary cancer and mesothelioma caused by asbestos; consequences of pneumoconiosis in respiratory and circulatory organs.</td>
</tr>
<tr>
<td><strong>34. Thiurams, carbamates, derivatives of paraphenylene diamines</strong></td>
<td>Skin changes (contact dermatitis).</td>
</tr>
<tr>
<td><strong>35. Reactive and dispersion dyes</strong></td>
<td>Skin changes (contact dermatitis); asthma and rhinitis caused by reactive dyes.</td>
</tr>
<tr>
<td><strong>36. Aflatoxins</strong></td>
<td>Cancer of liver. Biological factors</td>
</tr>
</tbody>
</table>
## Biological factors

<table>
<thead>
<tr>
<th>Typical forms of disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Spores released by bacteria and molds and bacteria and molds and other biologically active substances</td>
</tr>
<tr>
<td>2. Tuberculosis bacilli</td>
</tr>
<tr>
<td>3. Viruses, bacteria, fungi, protozoa and schistosomes</td>
</tr>
</tbody>
</table>

### 4 §
Tendovaginitis and humeral epicondylitis in subsection two of 4 § in the Act on Occupational Diseases are compensated as occupational diseases caused by a physical factor when caused by performing repetitive, monotonous or strained movements as designated in subsection one of 1 § of the Act on Occupational Diseases.

### 5 §
This ordinance will come into effect as of January 1989.

The ordinance (850/48) of 3 December 1948 passed under the Accident Insurance Act and the Act on Occupational Diseases shall remain in force in so far as it relates to occupational diseases.
According to the Statute on Certain Injuries Compensable as Occupational Accidents (852/48), passed in 1948, the following conditions are to be compensated in the same manner as occupational diseases or accidents, i.e., if they are caused by work factors:
1) sores and galls
2) lesion caused by a corrosive substance
3) lesion due to inhalation of a dangerous gas
4) inflammation of the patella or elbow due to repeated or unusual pressure
5) tendinitis crepitans due to repeated or monotonous work movements if it is not a complication of some defect, injury or illness that is not compensable under the Occupational Accident Insurance Act
6) lesion attributable to extreme temperatures, for example, frostbite or sunstroke
7) lesion due to considerable fluctuation in air pressure.

This ordinance will come into effect on 1 January 1949.