

Focus on IFA's work

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Publication of 3rd edition of updated occupational disease report on OD 1317

Problem

When investigating occupational diseases (OD), the typical problems are those of establishing the nature and extent of harmful effects and of assessing cases with the aid of medical examinations. And OD 1317 (polyneuropathy or encephalopathy caused by organic solvents or mixtures thereof) is no exception. In the event of the lack of or insufficiency of documentation of exposure at workplaces that no longer exist and cannot be reconstructed, it is generally accepted that findings from cadastres and data from comparable workplaces may be used.

Activities

For this 3rd edition of the OD report (in German only), the information and data on exposure to organic solvents have been updated and revised. In addition, the recommendations for assessment in the section "Neuropsychological examination" have also been brought into line with the latest state of medical knowledge. In particular, account has been taken of the changes and additions to the limit values for the various solvents and the leaflet on OD 1317, which was revised in 2005 and published by the Federal Ministry of Health (BMGS) (printed in the annex to the report). The assessment recommendations also include proposals for evaluating the reduction in earning capacity caused by the occupational disease. This permits uniform application of the law on a scientifically sound basis.

Tabelle 20:
Expositionen gegenüber Styrol im Datenzeitraum von 2003 bis 2014

Branchen/Arbeitsbereichsgruppe	Anzahl Messwerte	Anzahl Betriebe	Höchste BG * in mg/m ³	Konzentrationen in mg/m ³	
				50%-Wert	90%-Wert
Heißpressen in der Elektrotechnik und bei der Lampenherstellung	103	4 **	k. A.	48,5	105,0
Herstellung von Zubereitungen in der Keramikindustrie	57	24	3,0	14,0	75,1
Kleben	46	29	3,0	1,5 +	68,4
Kunststoffteileherstellung in der Kunststoffindustrie	310	107	8,1	34,0	140,0
Kalt-/Warmverarbeitung von Kunststoffen in der Kunststoffindustrie	104	54	4,0	7,4	66,0
Kunststoffteileherstellung und Kunststoffverarbeitung in sonstigen Branchen (Schäumen, Prepreg, Gießen, Extrudieren, Spritzen oder Kunststoffschweißen)	35	28	12,0	1,5 +	28,0
Laminieren Formkörper/GFK	717	197	3,0	106,5	343,0
Mechanische Bearbeitungsverfahren in der Elektrotechnik, Feinmechanik und Metallbearbeitung	37	20	9,0	13	72,5

Updated table from the new German OD 1317 report showing data of exposure to styrene in data period 2005 to 2014

The review of the assessment principles for the determination of the reduction in earning capacity presented in the first edition of this OD report was based on the discussions in the colloquium of the then Central Association of the Social Accident Insurance Institutions of the Commercial Sector (HVBG) and the current German Social Accident Insurance (DGUV) in Hennef on 10 January 2001, involving specialists from the relevant medical fields and an expert from the Institute for Labour Market and Occupational Research of the Federal Employment Agency.

The statistically evaluated exposure data in the 3rd edition of the OD 1317 report refer exclusively to the data period 2003 to 2014. Information on work areas in which neurotoxic solvents were used before 2003 and exposure data for their assessment can be found in the 2nd edition of the OD report.

Results and Application

The aim of this OD report is help to demonstrate as far as possible the quantitative and qualitative work-related exposure to neurotoxic solvents in the processing of relevant cases. The first part of the report contains special information on solvents and mixtures whose the neurotoxicity is assured according to the current state of knowledge.

The report contains overviews of the occurrence of substances in different industries as well as substance dossiers containing chemical and physical data, limit values and intake routes. The report also compiles statistical evaluations relevant to the occupational disease investigation procedure from the IFA MEGA exposure database on exposure to solvents in certain sectors and at certain workplaces. The technical information is primarily intended to help the prevention service to record and evaluate the exposure situation completely and thoroughly if it is no longer possible to gather all the facts at the insured person's workplace. If data is available for the insured person's specific workplace, priority is to be given to these data as a basis for the assessment, and not data from other sources.

The second focus of the report is on the recommendations for assessment drawn up by experts from various disciplines who have gained extensive experience in the field from the observation, treatment and evaluation of relevant diseases. Additional information can be found in the annex in the form of evaluating summaries of literature data on the neurotoxic exposure thresholds of individual substances and mixtures.

Area of Application

Social accident insurance institutions and medical experts who require sound assessment principles when processing OD 1317

Additional Information

- Gabriel, S.: The BG measurement system for hazardous substances (BGMG) and the exposure database of hazardous substances (MEGA). *Int J Occup Saf Ergon* 12 (2006) No. 1, pp. 101-104
- Arnone, M.; Auras, S.; Beth-Hübner, M.; Deutsch, B.; Fröhlich, H.-P. et al.: BK 1317 – Polyneuropathie oder Enzephalopathie durch organische Lösungsmittel oder deren Gemische (BK-Report 1/2018). Ed. Deutsche Gesetzliche Unfallversicherung e. V. (DGUV), Berlin, 2018

Expert Assistance

IFA Division 1: Information technology, risk management

Literature Requests

IFA Central Division