

Focus on IFA's work

Edition 5/2018

617.0-IFA:638.3

MEGA evaluations for the preparation of REACH exposure scenarios

Problem

The REACH Regulation demands that producers and importers of a substance register it with the European Chemicals Agency (ECHA). On the principle of "No data, no market", producers and importers have to prepare exposure scenarios for assessment of the substance and its use and define risk management measures. This applies upwards of a certain quantity of produced/imported substance. For hazardous substances of very high concern, which are listed in Annex XIV of the Regulation, there is a requirement for authorisation if these substances are used or brought into circulation.

Activities

Together with the German social accident insurance institutions, the IFA evaluates data from the MEGA exposure database for the preparation of REACH exposure scenarios. The evaluations are also made available to third parties for REACH registration on the following conditions:

- industrial and sector associations turn to individual social Accident Insurance Institutions (AIs) or to the IFA
- the exposure descriptions satisfy certain qualitative requirements defined by the AIs and are prepared in cooperation with the affected AI, and
- IFA or the AIs publish the exposure descriptions in their own media so that they are freely accessible to the public.

Substance name	CAS-No.
Acetonitrile	75-05-8
Aniline	62-53-3
Boron and its compounds	7440-42-8
2-Butanone oxime	96-29-7
Chromium(VI) compounds (calculated as CrO ₃)	18540-29-9
Cresols	1319-77-3
Decamethylcyclopentasiloxane	541-02-6
Diethanolamine	111-42-2
Diethylene glycol	111-46-6
Dimethyl sulfate	77-78-1
Hexamethylcyclotrisiloxane	541-05-9

Extract from existing exposure descriptions

For the hazardous substances listed in the table, exposure data were evaluated for exposure descriptions.

After approval by the prevention managers of the social accident insurance institutions, all the exposure descriptions are posted online on IFA's website.

Results and Application

For the preparation of REACH exposure descriptions, current exposure data from the year 2000 onwards are evaluated that have been gathered according to the standard process in the social accident insurance institutions' MGU measurement system for exposure assessment and recorded as air samples with details of exposure.

The evaluation criteria are:

- Workplace measurements
- Person-related exposure information
- Sampling representative of the exposure duration
- Exposure time ≥ 6 hours or < 6 hours
- If the analysis results are below the respective quantification limit (QL), the value of half the QL is entered in the statistics.
- For statistical populations consisting of fewer than ten measured data, no cumulative frequency concentrations are calculated.
- The evaluation is performed for industry and work area groups.
- Depending on the available measured values, a distinction is made between stationary and personal measurements and between measured values with and without local exhaust ventilation.

The following statistical parameters of the data are presented in a table: the number of measured data, firms, values beneath the quantification limit, highest quantification limit in mg/m^3 , share of values \leq the limit value in %, and the 50th, 90th and 95th percentiles in mg/m^3 .

The evaluations are available online in both German and English.

For companies, the statistical evaluations may represent a first opportunity for assessment. The data reflect the exposure level measured in Germany in the various areas by the social accident insurance institutions since 2000.

Area of Application

National and international institutes, public authorities, associations and consortiums that use exposure descriptions in connection with REACH

Additional Information

- MEGA evaluations for exposure descriptions: www.dguv.de/webcode/e120913
- MEGA exposure database: www.dguv.de/webcode/e20620
- Gabriel, S.; Koch, U.; Koppisch, D.; Stamm, R.; Steinhausen, M.: Neue Herausforderungen an die Ermittlungen, Dokumentation und Auswertung von Expositionsdaten zu Gefahrstoffen. Gefahrstoffe – Reinhalt. Luft 72 (2012) No. 1/2, pp. 18-19
- Federal Institute for Occupational Safety and Health (BAuA): www.reach-clp-biozid-helpdesk.de

Expert Assistance

IFA, Division 1: Information technology – Risk management

Literature Requests

IFA, Central Division