

***m*-Chloroaniline**

MAK value (1990)	not yet established, see Section IIb of the <i>List of MAK and BAT Values</i>
Peak limitation	–
Absorption through the skin (1990)	H
Sensitization (2001)	Sh
Carcinogenicity	–
Prenatal toxicity	–
Germ cell mutagenicity	–
BAT value	–
Synonyms	3-chloroaniline <i>m</i> -aminochlorobenzene 1-amino-3-chlorobenzene 3-chlorobenzeneamine <i>m</i> -chlorophenylamine 3-chlorophenylamine
Chemical name (CAS)	3-chlorobenzeneamine
CAS number	108-42-9

Sensitization

In the documentation from 1990 (documentation "m-Chloroaniline" 1992) there were no data for sensitizing effects as a report about effects in humans was not taken into consideration, and there were no data available for the sensitizing ef-

fects in animals. This supplement now takes into account new data for this end point.

m-Chloroaniline can be used as an intermediate, for example in the production of pesticides, dyes and plastics (BUA 1991).

Allergenic Effects

Effects in Humans

Sensitizing effects on the skin

Twenty-six workers from the dye industry in India who suffered from dermatitis were tested (patch test) among other things with *m*-chloroaniline (0.2 %, vehicle not stated). Fourteen of these workers reacted to 5-chloro-*o*-anisidine hydrochloride, and 8 of these also to *m*-chloroaniline. The 50 control persons, however, did not react to *m*-chloroaniline (Mathur et al. 1985).

Sensitizing effects on the airways

There are no data available.

Results of Animal Studies

Sensitizing effects on the skin

The skin sensitizing effects of *m*-chloroaniline were investigated in a maximization test according to OECD test guidelines. After intradermal induction (5 % in propylene glycol) and topical treatment (50 % in propylene glycol), skin reactions were seen in 14/20 and 3/20 animals from the treated groups after the second provocation treatment (25 % and 12.5 % in propylene glycol, respectively), while the 10 control animals did not react. *m*-Chloroaniline was thus found to cause skin sensitization in animal experiments. The concentration of 50 % used in the first provocation treatment caused irritative effects on the skin of the animals of the treated group and the control animals (Bayer AG 1992).

Sensitizing effects on the airways

There are no data available.

Manifesto (sensitization)

One publication reported patch test reactions with clinical relevance; simultaneous reactions to structurally similar substances were also always observed. Also in animal experiments skin sensitizing effects were seen with *m*-chloroaniline. *m*-Chloroaniline is therefore designated with an "Sh". There are no data available for sensitizing effects on the respiratory passages.

References

- Bayer AG (1992) *m*-Chloranilin rein dest., Untersuchung auf hautsensibilisierende Wirkung bei Meerschweinchen (Maximierungstest nach Magnusson und Kligman) (Pure, distilled *m*-chloroaniline, investigations of the skin sensitizing effects in guinea pigs (maximization test according to Magnusson and Kligman) unpublished report 21710
- BUA (Beratergremium für umweltrelevante Altstoffe) (1991) *o*-Chloranilin, *m*-Chloranilin, BUA-Stoffbericht 57, translated into English in 1994, S. Hirzel Verlagsgesellschaft, Stuttgart
- Mathur NK, Mathur A, Banerjee K (1985) Contact dermatitis in tie and dye industry workers. *Contact Dermatitis* 12: 38–41

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