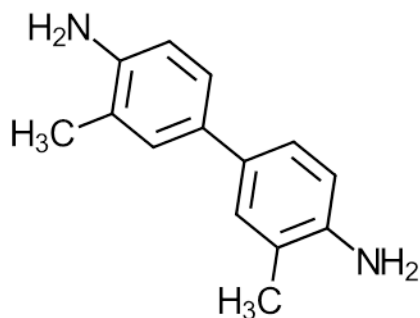


CAS 119-93-7

3,3'-Dimethylbenzidine (*ortho*-Toluidine)

C₁₄H₁₆N₂



Summary of Health Effects

3,3'-Dimethylbenzidine (*ortho*-Toluidine) may cause cancer in humans.

How is *ortho*-Toluidine used?

Ortho-Toluidine is used as a dye and in dye and pigment production.^{1,2}

Toxicity: What are its health effects?

Ortho-Toluidine is considered possibly carcinogenic to humans by the International Agency for Research on Cancer.¹ The National Toxicology Program classified *ortho*-Toluidine, and chemicals that break down to it, as reasonably anticipated to be carcinogenic.² *Ortho*-Toluidine is included on California's Proposition 65 list as a carcinogen.³ The EPA classified *ortho*-Toluidine as a probable carcinogen.⁴

Exposure: How can a person come in contact with it?

A person can come in contact with *ortho*-Toluidine by breathing it in or from skin contact when handling packaged dyes and pigments.⁵

The 2014 National Health and Nutrition Examination Survey (NHANES) report did not include data for *ortho*-Toluidine.

Other Information⁶

In December 2014, the Environmental Protection Agency (EPA) added nine benzidine-based dyes to an existing Significant New Use Rule, which requires manufacturers and processors to give the EPA 90 days' notice before starting or resuming new uses of any of these nine dyes.

The rule became effective in February 2015 and gives the EPA the authority to ban or limit the proposed use of the chemicals. It also prevents these benzidine-based dyes, and products containing them, from being imported without the EPA's review.

References

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